China, Manchuria, Japan, Indo-China, Siam, Straits Settlements, Malay States, Burma, India, Malaysia, and the Philippines

ILLUSTRATED FEATURES The East Batan Coal Mines—The Philippine and American Trade Expansion—The Priestman Dredge—The Chinese Army: : : : : : : : : :

THE FAR EASTERN REVIEW

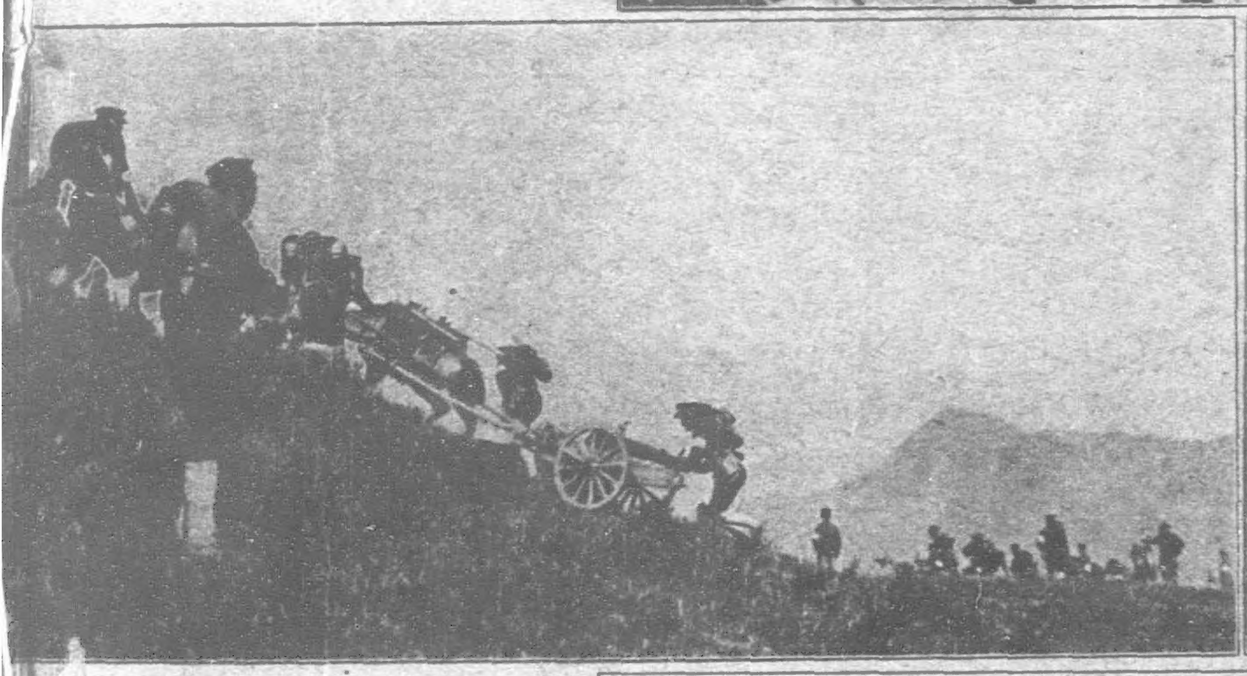
VOL. VI: No. 5. MANILA, SHANGHAI AND YOKOHAMA, OCTOBER, 1909. 25 cents U. S. Currency 50 " Philippine Cy.

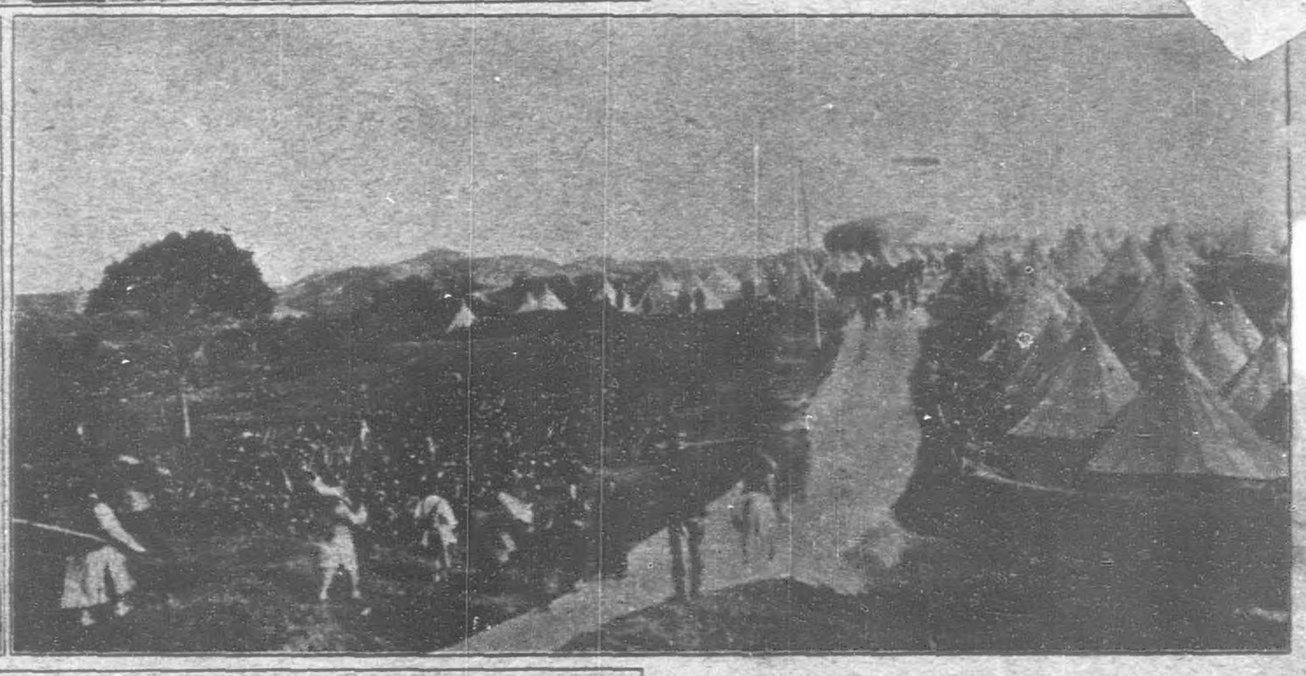
CHINESE ARMY

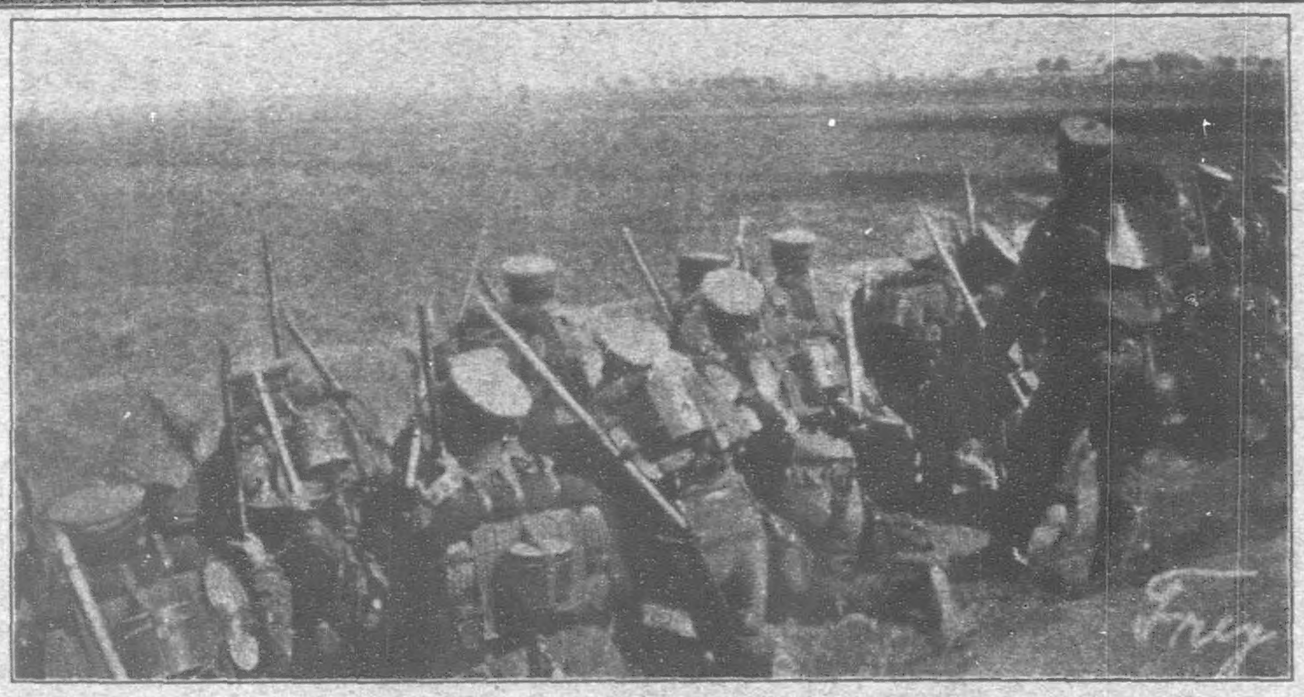
ANHUI MILITARY MANEUVERS SHOWING

YALE UNIVERSITY
MAR 18 1910
LIBRARY.









(1) INFANTRY AT HALT—(2) CHINESE ARTILLERY PULLING GUNS INTO POSITION—(3) INFANTRY CAMP—(4) ENGINEER CORPS AND ENTRENCHMENT.

U10
F22
v.6

ENGINEERING COMMERCE & FINANCE

Hongkong and Shanghai Banking Corporation

DEPOSITORY OF THE GOVERNMENT OF THE PHILIPPINE ISLANDS

Capital (Paid in Cash).....$15,000,000
Sterling Reserve Fund.....$15,000,000
Silver Reserve Fund.....$15,250,000
Reserve Liability of Prop'rs.$15,000,000

COURT OF DIRECTORS:
HON. MR. W. J. GRESSON, Chairman.
H. E. TOMKINS, Esq. Deputy Chairman.
E. G. BARRETT, Esq.
J. W. BANDOW, Esq,
C. S. GUBBAY, Esq.
W. HELMS, Esq.
C. R. LENZMANN, Esq.
E. SHELLIM, Esq.
R. SHEWAN, Esq
H. A SIEBS, Esq.
HON. MR. H. A. W. SLADE



Head Office, Hongkong and Shanghai Banking Corporation, Hongkong

BRANCHES AND AGENCIES:

Hongkong	*Singapore*
Shanghai	*Lyons*
Yokohama	*Tientsin*
London	*Pekin*
Bombay	*Iloilo*
Calcutta	*Penang*
Foochow	*Batavia*
Kobe	*Bangkok*
Saigon	*Hamburg*
Hankow	*Nagasaki*
Amoy	*Rangoon*
Manila	*Colombo*
San Francisco	*Sourabaya*
New York	*Canton*

CORRESPONDENTS—In Samar and Leyte: WARNER, BARNES & CO., LTD.
CORRESPONDENTS—In Cebu: KER & CO.
LONDON OFFICE—31 Lombard St.
LONDON BANKERS—London & County Banking Co., Ltd.

Interest Allowed on Fixed Deposits at Rates which may be Learned on Application. Credit Granted on Approved Securities and Every Description of Banking and Exchange Business Transacted. Drafts Granted on London and the Chief Commercial Places in Europe, India, Australia, America, China and Japan.

J. R. M. SMITH, Chief-Manager - - - HONGKONG ~ A. G. STEPHEN, Manager - - - MANILA

WADE GARDNER, Agent, 50 Wall Street, New York.
W. H. HARRIES, Agent, 401 Montgomery Street, San Francisco

INTERNATIONAL BANKING CORPORATION

HEAD OFFICE, 60 WALL STREET, NEW YORK

LONDON OFFICE, THREADNEEDLE HOUSE, BISHOPSGATE STREET, WITHIN, E. C.

CAPITAL PAID UP AND SURPLUS, $6,643,686.99 UNITED STATES CURRENCY

THOMAS H. HUBBARD, President
JAMES S. FEARON, Vice-President

JOHN B. LEE, General Manager
ALEXANDER & GREEN, Counsel

BRANCHES

Bombay	Hongkong	San Francisco
Calcutta	Kobe	Shanghai
Canton	Manila	Singapore
Cebu	Panama	Washington, D. C.
City of Mexico	Penang	Yokohama

AGENCIES AND CORRESPONDENTS IN ALL PRINCIPAL CITIES OF THE WORLD
FISCAL AGENTS FOR THE COLLECTION OF THE CHINESE INDEMNITY
FISCAL AGENTS FOR THE UNITED STATES IN CHINA, THE PHILIPPINE ISLANDS AND THE REPUBLIC OF PANAMA
DESIGNATED DEPOSITORY FOR THE FUNDS OF THE GOVERNMENT OF THE PHILIPPINE ISLANDS
GENERAL FOREIGN BUSINESS TRANSACTED
ISSUE COMMERCIAL AND TRAVELLERS' LETTERS OF CREDIT
BUY AND SELL BILLS OF EXCHANGE AND CABLE TRANSFERS

AS A FIELD FOR THE AGRICULTURIST

VICTORIA IS UNEQUALLED

THE NUMBER OF FARMS IN VICTORIA IS

52,987

and There is Room for Thousands More Equally as Productive as Those Which in 1906 Produced Over Twenty Millions Sterling or - - - - - - - - -

AN AVERAGE OF NEARLY £385 PER FARM

IMPROVED FARM ALLOTMENTS

ARE AVAILABLE

Under the Closer Settlement Acts.

SMALL DEPOSIT—3 Per Cent. of Value of Allotment.

LONG AND EASY TERMS—31½ YEARS. LOW INTEREST.

FOR FURTHER INFORMATION, ETC.

Apply Secretary Closer Settlement Board, Melbourne

or VICTORIAN GOVERNMENT COMMERCIAL AGENCY

20 Foochow Road, Shanghai

A NEW EL DORADO

The Philippine Islands

A Virgin Field Awaiting The Investor. Rich in Minerals, Hardwoods, and Agricultural Products

Gold Production Increased 150% last year

Coal and Oil Fields Being Developed

Vast Deposits of Copper and Iron

40,000,000 Acres of the Finest Hardwoods on Earth

We Raise Hemp, Copra, Rubber, Tapioca, Sugar, Tobacco, Coffee, Maguey, and all other Products of Tropical Climes

No Other Land on Earth Offers a

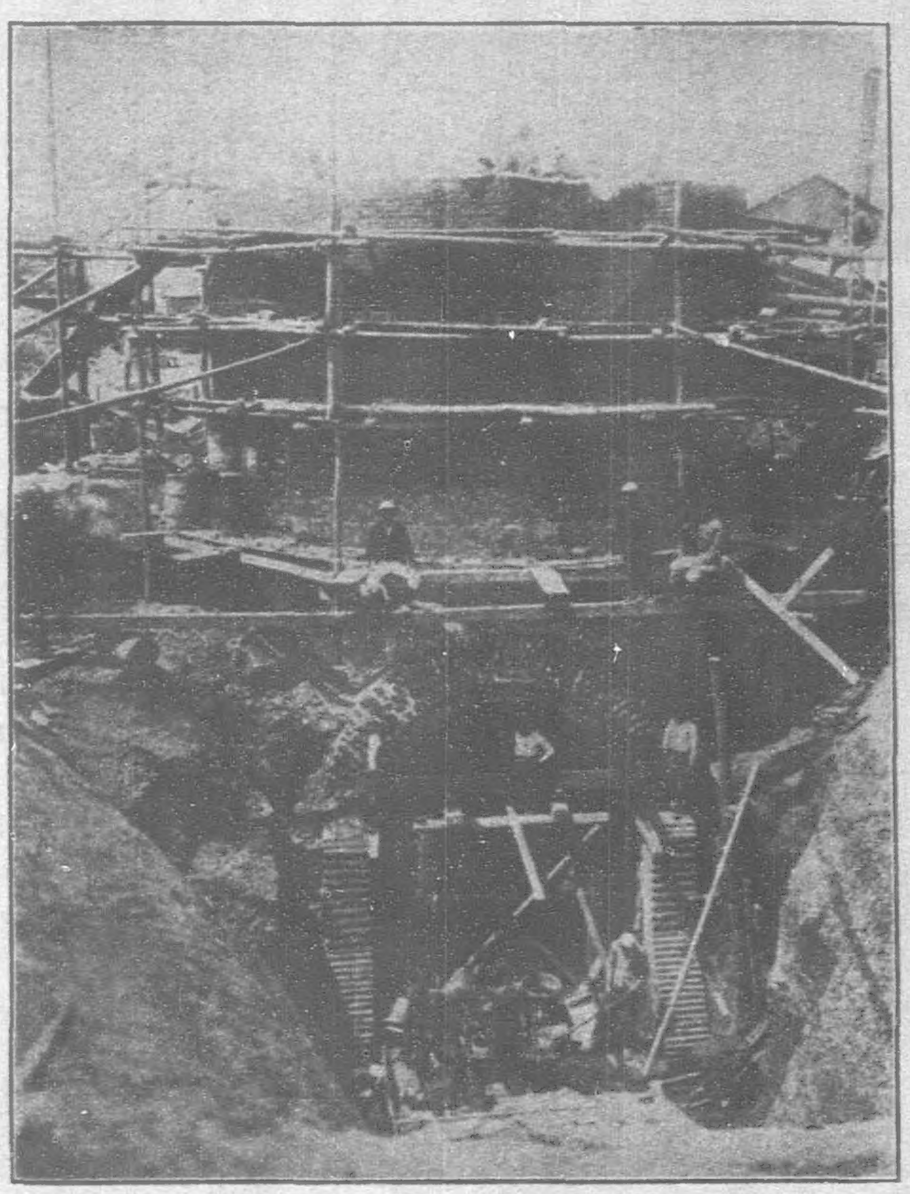
More Inviting Field for Capital

Write to the Publicity Committee

THE MANILA MERCHANTS' ASSOCIATION

FOR INFORMATION

FUSHUN COAL



SINKING SHAFT AT OYAMA PIT, FUSHUN COLLIERY.

The Best Steaming Coal in the Far East

Output 2,000 Tons per day

Depots at Newchwang and Dalny

Steamships and Factories Supplied by Special Contract Rates

USED EXCLUSIVELY BY THE LOCOMOTIVES AND STEAM PLANTS OF THE SOUTH MANCHURIA RAILWAY

South Manchuria Railway Co., Mining Dept.

DAIREN

Agents: SHANGHAI — Telegraphic Address: MANTETSU — Codes: A. B. C. 5th Edition, A-I, and Lieber's

KAI-PING

COAL FOR OVERSEA
MARKETS PASSES THROUGH THE COMPANY'S ICE FREE PORT OF CHINWANG-TAO WHERE FACILITIES EXIST FOR QUICK DELIVERIES.

OUTPUT OVER
1,250,000 TONS PER ANNUM THE STANDARD STEAMING COAL OF THE FAR EAST, USED ON ALL RAILWAYS IN NORTH CHINA

EQUAL TO BEST DURHAM COKE. PACKED IN BASKETS AND DELIVERED IN GOOD CONDITION AT ANY PORT IN THE EAST.

PING LINE

PASSENGER AND CARGO
SERVICE FROM SHANGHAI TO TIENTSIN DIRECT AND "VIA CHINWANG-TAO" AND TO ALL STATIONS ON THE IMPERIAL RAILWAYS OF NORTH CHINA VIA CHINWANG-TAO AT SPECIAL RATES.

STEAMERS

KAIPING.	3500	TONS
HSIPING.	2500	,,
KWANG-PING	2300	,,

THROUGH STEAMER AND RAILWAY TICKETS ISSUED; RETURN TICKETS INTERCHANGEABLE WITH HAMBURG-AMERIKA LINE. SPECIAL RATES FOR THE ROUND TRIP VIA HANKOW AND LU-HAN RAILWAY.

PIPES

VITRIFIED STONEWARE PIPE & FITTINGS SALT GLAZED

TILES

REFRACTORY CLAY TILES FOR COOLING INTERIORS

ROOFING, PAVING AND GLAZED.

PAVING TILES FOR STATION PLATFORMS AND SIDEWALKS

FIRE BRICK

ALL SIZES

FLUE COVERS. DAMPERS

BOILER SEATING BLOCKS

ALL SHAPES

LOCOMOTIVE ARCH BLOCKS

FURNACE SILLS,
STOVE BACKS, SPECIAL
BLOCKS AND BRICKS OF ALL KINDS.

THE CHINESE ENGINEERING AND MINING CO., LIMITED

CHEFOO: ANZ & CO.
WEIHAIWEI: LAVERS & CLARK
HANKOW: C. MONBARON, ESQ.
DALNY: CORNABE, ECKFORD & CO.

HEAD OFFICE: TIENTSIN,

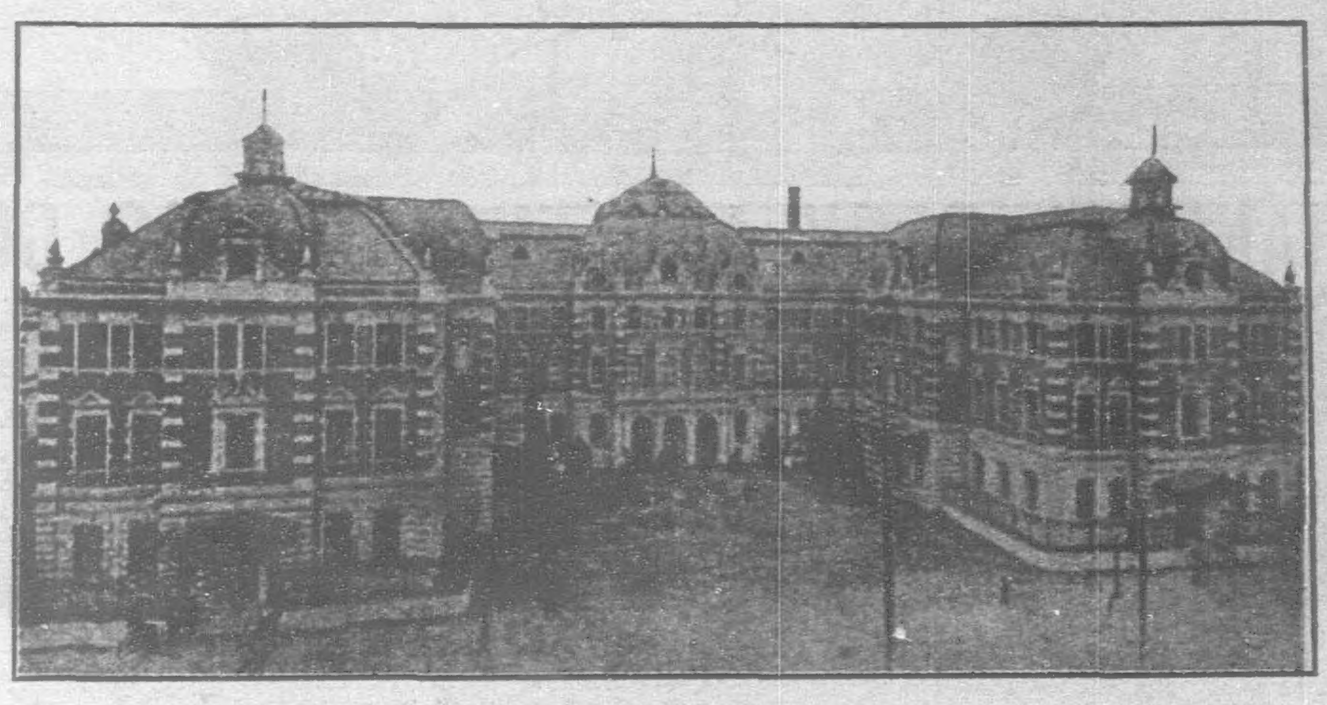
SHANGHAI, JINKEE ROAD,

HONGKONG, ALEXANDRA BUILDINGS

TSINGTAU, NEWCHWANG, MUKDEN } ARNHOLD, KARBERG & COMPANY.
PEKIN: V. REDELSPERGER, ESQ.
SINGAPORE: ADAMSON, GILFILLAN & COMPANY, LTD.

General Telegraphic Address: "MITSUI"

A B C 5th Edition and A1 Codes used



THE MITSUI BUILDING, TOKIO.
Containing the offices of the Mitsui Family Council, The Mitsui Mining Co., The Mitsui Bank, and The Mitsui Bussan Kaisha

THE MITSUI BUSSAN KAISHA

(MITSUI & CO. IN EUROPE AND AMERICA)

HEAD OFFICE: Surugacho, Tokio, Japan

President: HACHIROJIRO MITSUI, Esq.

Directors: SENJIRO WATANABE, Esq.; GIICHI IIDA, Esq.; SANKICHI KOMURO, Esq ; KENZO IWAHARA, Esq.; JOTARO YAMAMOTO, Esq.

Home Branch Offices: YOKOHAMA, MOJI, KUCHINOTSU, NAGOYA, WAKAMATSU, MIIKE, OSAKA, KARATSU, TAIPEH, KOBE, NAGASAKI.

Branch Offices in Asia: TIENTSIN, NEWCHWANG, SHANGHAI, BOMBAY, SINGAPORE.

London Branch Office: MITSUI & Co., Lime Street.

New York Branch Office: MITSUI & Co., 445 Broome Street.

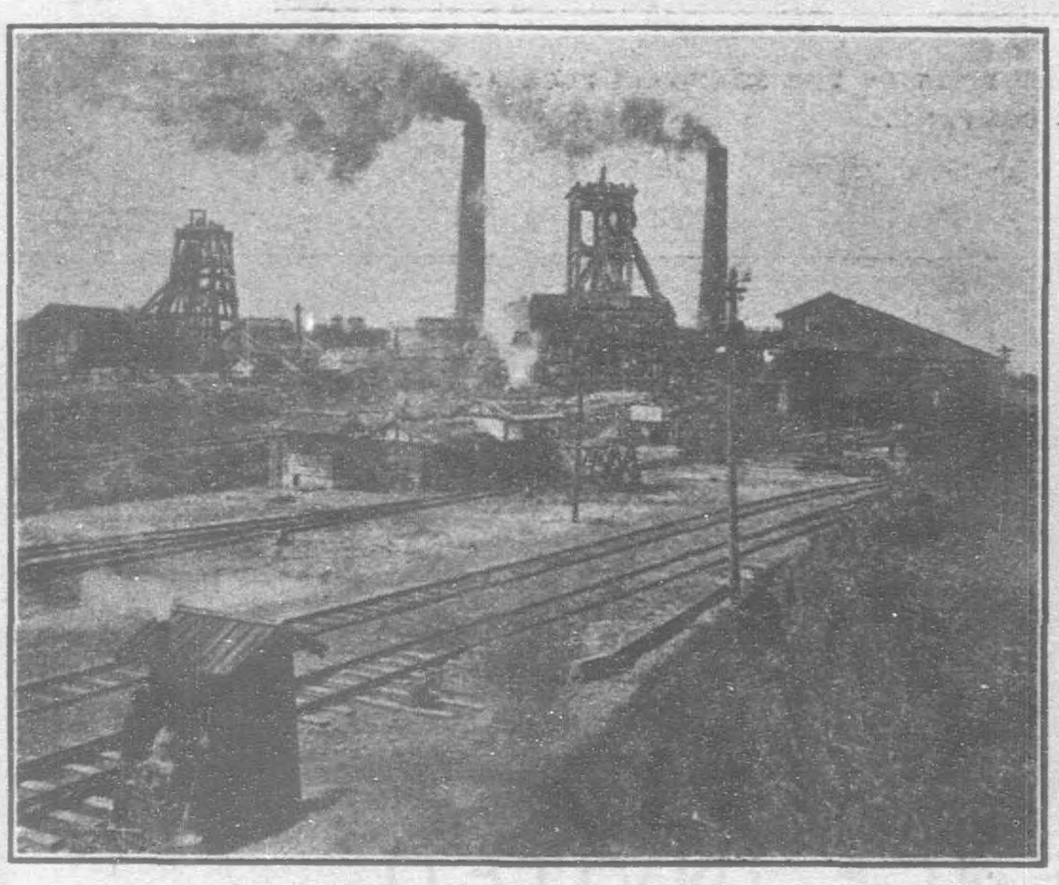
Agents: HAMBURG, CANTON, CALCUTTA, BANGKOK, FOOCHOW, HARBIN, SAN FRANCISCO, AMOY, DAIREN, TSINGTAU, SAIGON, SOURABAYA, HANKOW, SEOUL, ANTUNG, SYDNEY, MANILA, CHEFOO, CHEMULPO, RANGOON, VLADIVOSTOCK, ETC.

IMPORT, EXPORT AND COMMISSION MERCHANTS

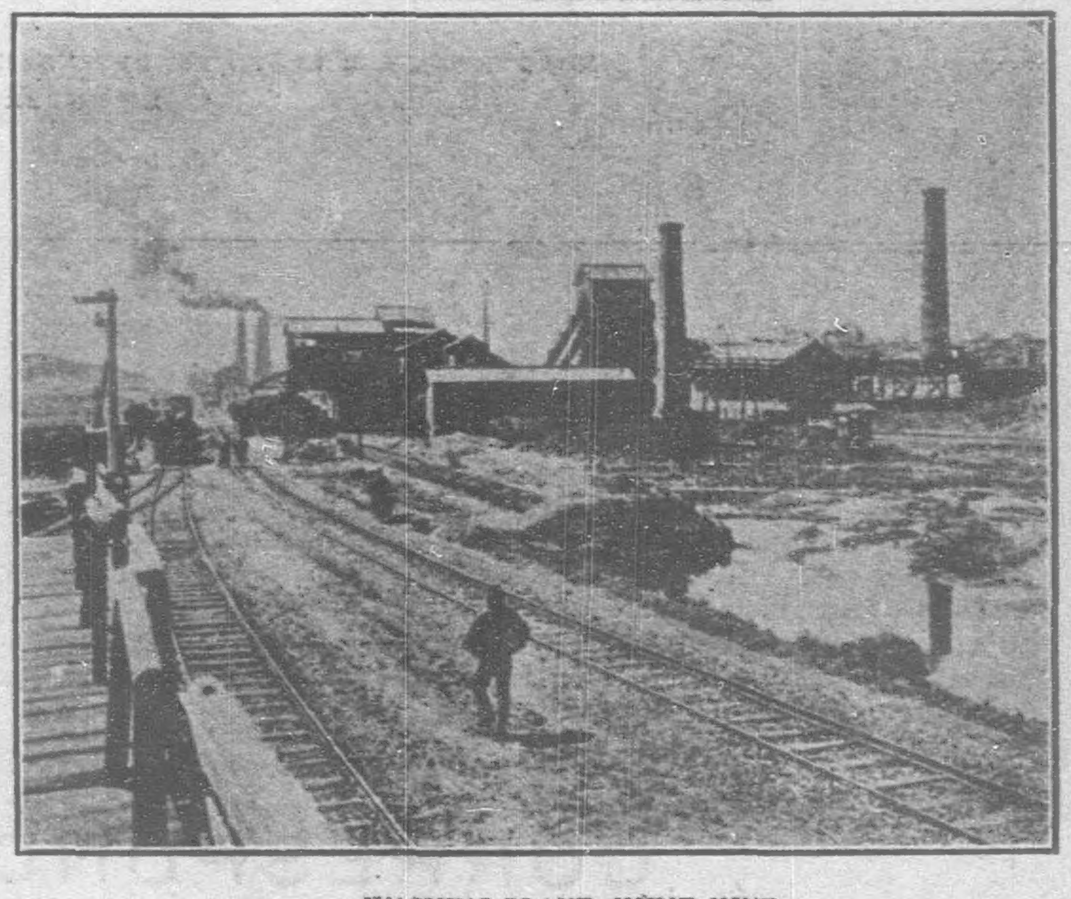
CONTRACTORS OF COAL to the Imperial Japanese Navy and Arsenals, the State Railways, Principal Railway Companies, Industrial Works, the United States Army Transport Service, and Home and Foreign Mail and Freight steamers.

SOLE PROPRIETORS of the famous Miike, Tagawa, Yamano and Ida Coal Mines, and Sole Agents for Hondo, Kanada, Kishima, Mameda, Mannoura, Ohnoura, Ohtsuji, Sasahara, Tohmiyama, Tsubakuro, Yoshio, Yunokibara, Takae, Fushun and other Coals.

IMPORTERS AND EXPORTERS of Cotton, Cotton Yarn, Cotton Piece Goods, Book-binding Cloth, Copper, Silver, Tin, Lead and other Metals, Railway Materials, Acids, Camphor, Flour, Cereals, Manure, Opium, Isinglass, Mushrooms, Sugar, Wax, Vermicelli, Sulphur, Hemp, Beer, Cement, Cigarettes, Matches, Paper, Hides, Leather Belts, Teak and other Timbers, Machinery, etc.



MIYANOHARA PIT, MIIKE MINE



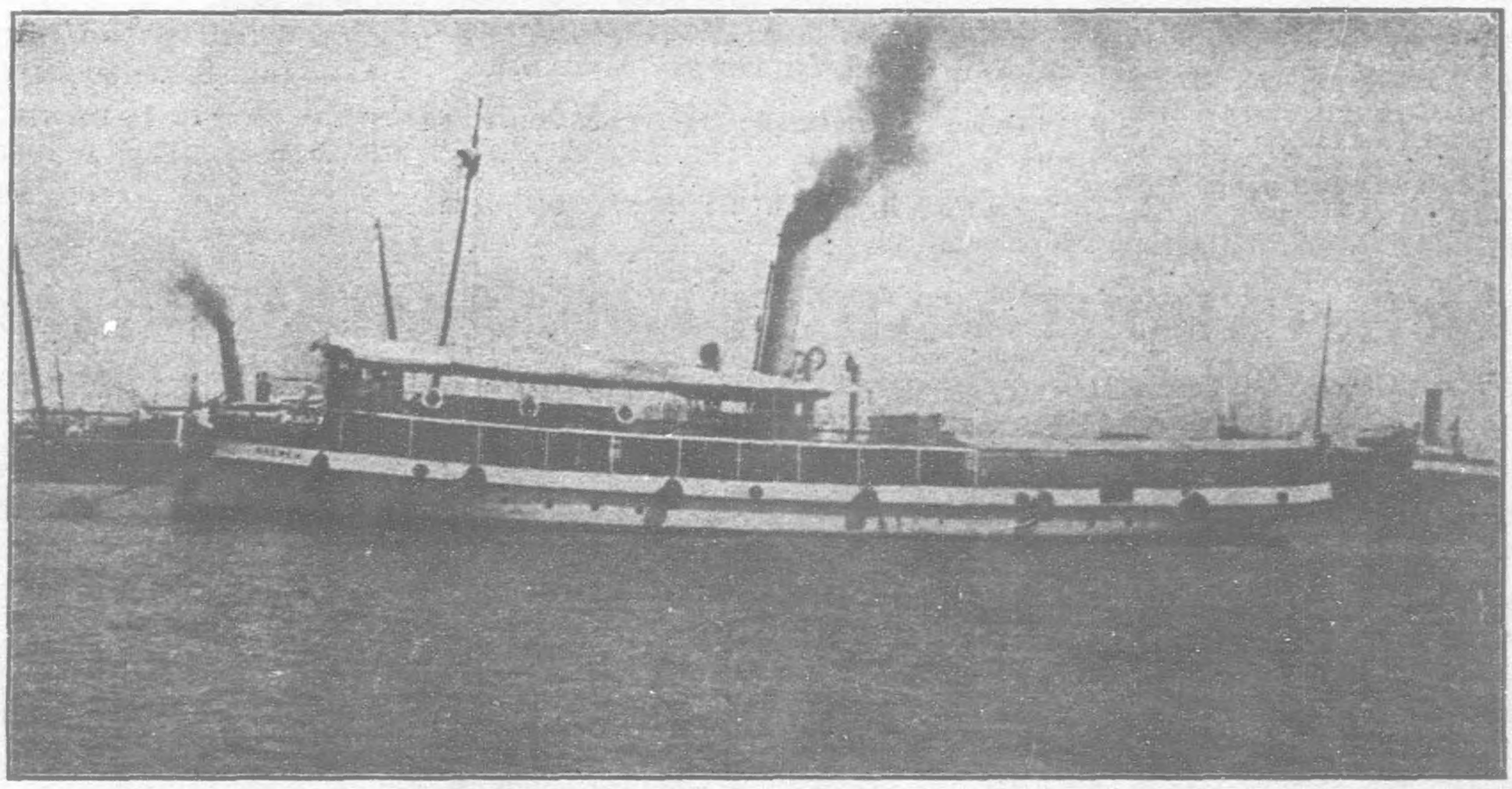
WASHING PLANT, MIIKE MINE

THE SHANGHAI DOCK AND ENGINEERING CO., LTD.

SHANGHAI
CHINA

Cable Address:
"FARNHAM," SHANGHAI

Codes Used:
A I., A B C (4th & 5th Editions)
Watkin's, Scott's, Western
Union and Engineering



NORDDEUTSCHER LLOYD TENDER "BREMEN" BUILT BY THE SHANGHAI DOCK AND ENGINEERING COMPANY.

The Docks are five in number, ranging in length from 360 feet to 560 feet, and breadth of entrance from 57 feet to 82 feet, with the depth of water on the sill from 16 feet to 24 feet.

The Dock charges are very moderate.

The Water Frontage is about 1½ miles in length. Wharves and Pontoons are arranged where steamers can moor during repairs; and slips for hauling up small vessels are provided. Sheer legs capable of lifting 65 tons are placed at the various Docks.

The extensive Shipbuilding yards and workshops are provided with the latest improvements in tools, traveling cranes of 70 tons' capacity, hydraulic and pneumatic machinery.

Lit up by Electric light with railway lines through workshops and yards.

Powerful salvage appliances can be supplied at short notice. Enquiries immediately attended to.

Estimates given for all classes of work; Coast Steamers, Side and Stern-Wheelers, Tugboats, Launches, Steam Barges, Dredgers, Floating Cranes, and Lighters a speciality.

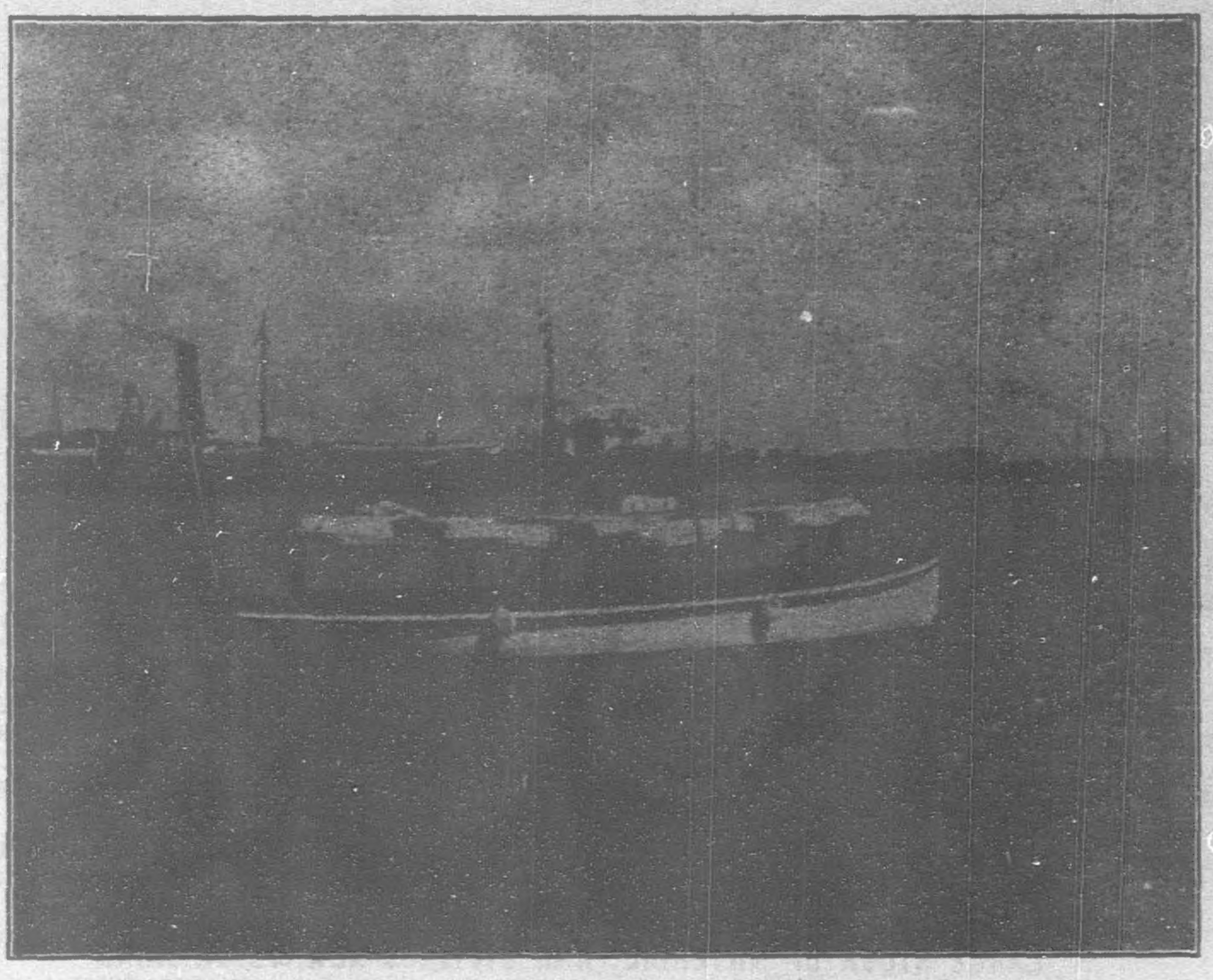
Every description of repairs and renewal work undertaken and expeditiously executed.

Land and Marine Engines and Boilers, Centrifugal, Mining, and other pumping machinery always in stock or in progress, also power driven Machine Tools, Engineer's Hand Tools, Steam, Gas, Oil, and Electric machinery and engineering accessories generally.

CORRESPONDENCE INVITED

NICOLAS TSU

Shipbuilder and General Contractor, Engineer, Boilermaker and Machinist



Open Launch, 35 feet in Length, Built by Nicolas Tsu, Shanghai, for the Whangpoo Conservancy

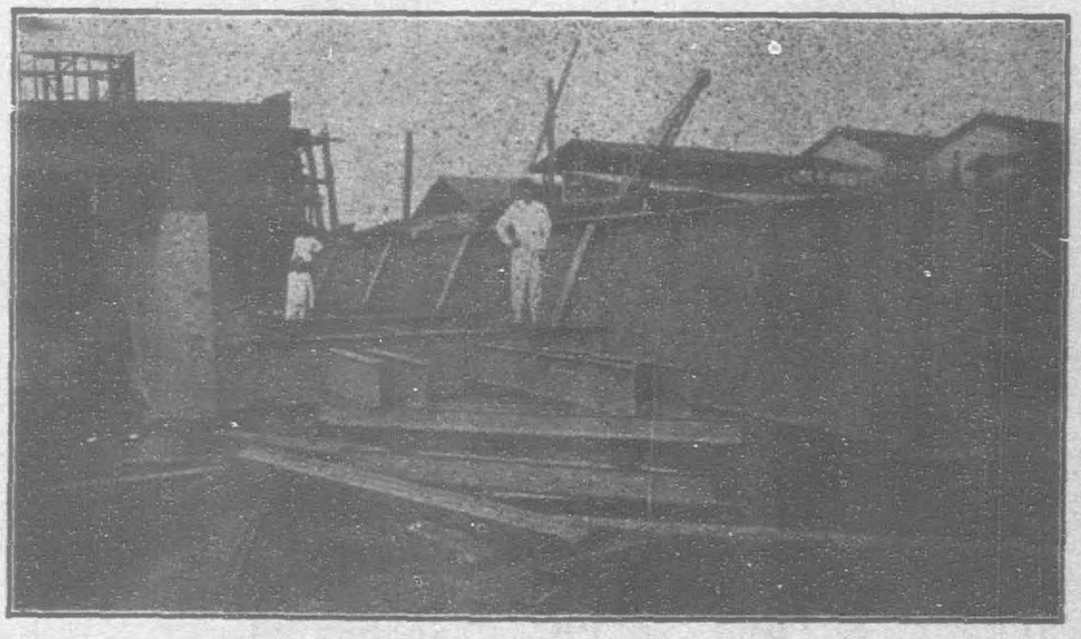
STEEL LIGHTERS, LAUNCHES, TUG BOATS, STEAM BARGES, MILL MACHINERY OF ALL DESCRIPTION, BOILERS, CASTINGS, FORGINGS, etc.

BRICK AND TILE WORKS AT TUNGKU ZENG-KA-TSE

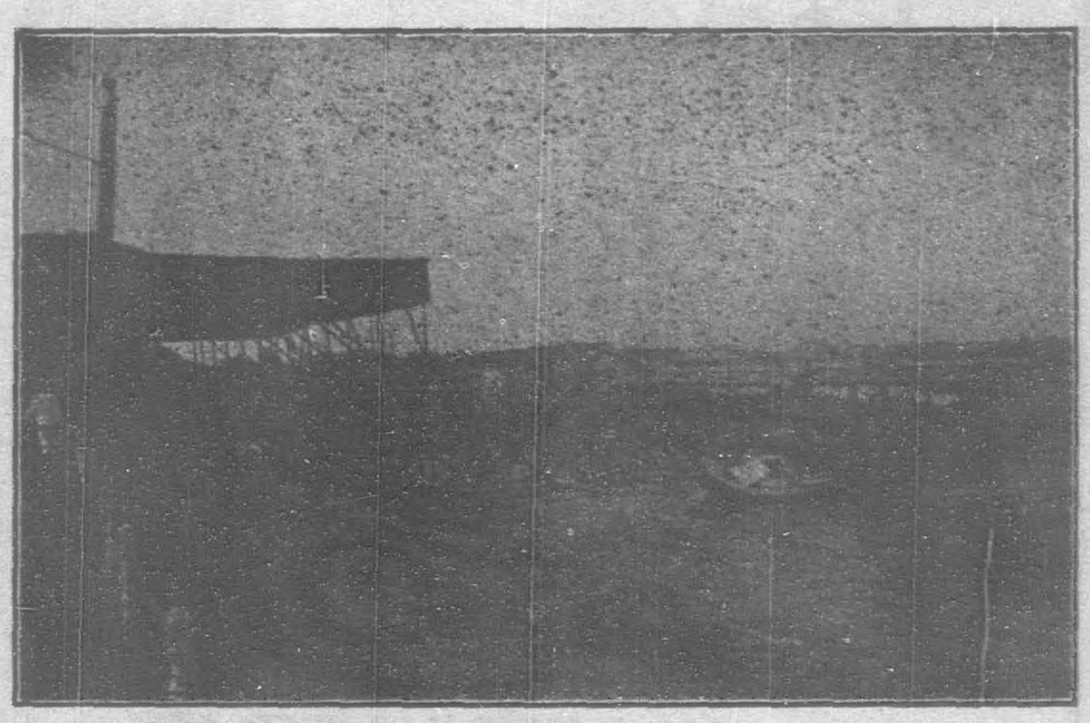
OUTPUT 2,000,000 PER MONTH:—BRICKS MADE TO ORDER IN ANY SIZE AND COLOR

LOCATION OF WORKS:—AVENUE DE BEZAURE, SOUTH CHINA BUND, SHANGHAI

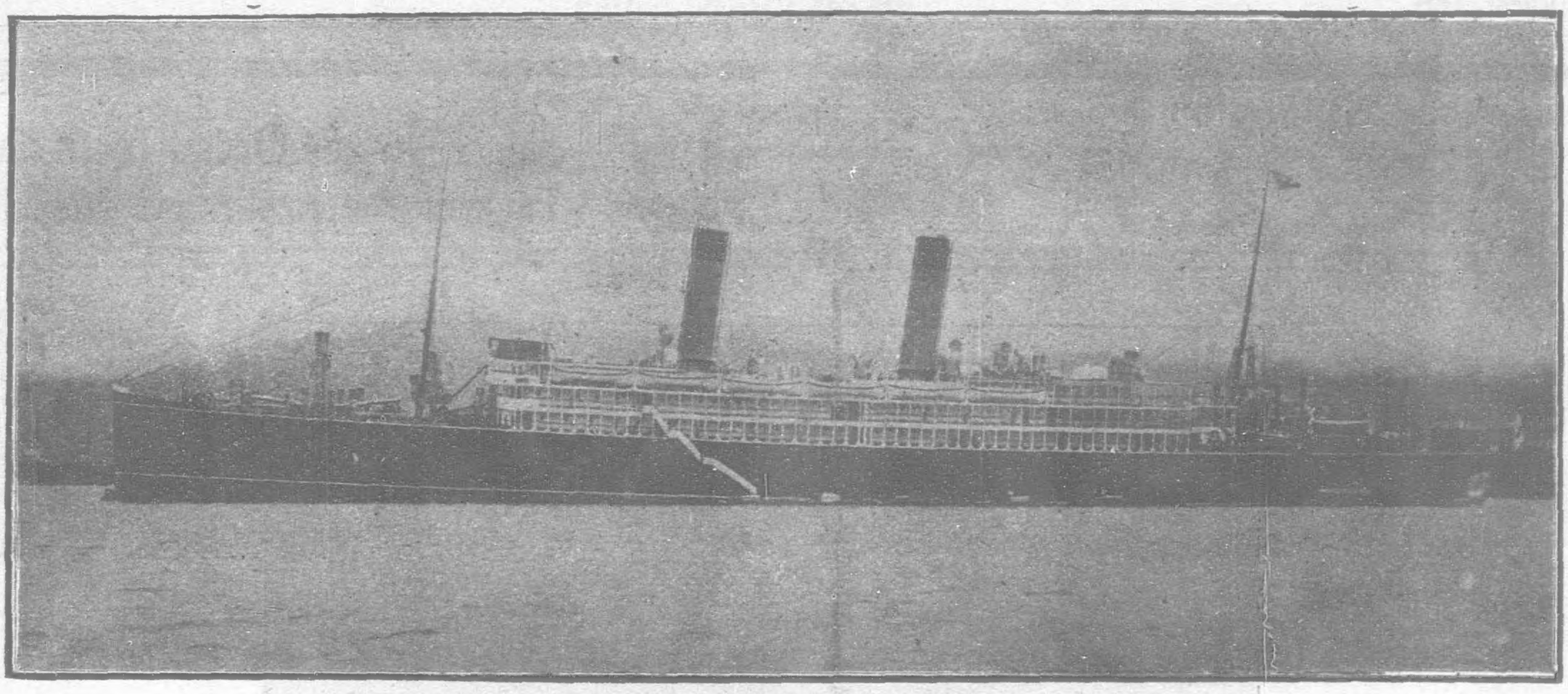
OR CARE OF BANQUE DE I'INDO CHINE, No. 1 QUAI DE FRANCE, **SHANGHAI**



Railroad Bridge of 60 foot Span constructed by Nicolas Tsu for the Kiang-su Railway Co.



Steel Jetty Built for the Customs at Shanghai by Nicolas Tsu



THE S. S. TENYO MARU, THE TOYO KISEN KAISHA'S NEW PACIFIC GREYHOUND

MITSU BISHI DOCKYARDS & ENGINE WORKS, NAGASAKI

DOCK NO. 1.		DOCK NO. 2.		DOCK NO. 3.	
EXTREME LENGTH	523 FT.	EXTREME LENGTH	371 FT.	EXTREME LENGTH	722 FT.
LENGTH ON BLOCKS	513 ,,	LENGTH ON BLOCKS	360 ,,	LENGTH ON BLOCKS	714 ,,
WIDTH OF ENTRANCE ON TOP . .	88 ,,	WIDTH OF ENTRANCE ON TOP . .	66 ,,	WIDTH OF ENTRANCE, TOP . . .	99½ ,,
,, ,, ,, ,, BOTTOM .	77 ,,	,, ,, ,, ,, BOTTOM .	53 ,,	,, ,, ,, BOTTOM .	88½ ,,
WATER ON BLOCKS AT SPRING TIDE	26½ ,,	WATER ON BLOCKS AT SPRING TIDE	22 ,,	WATER ON BLOCKS AT SPRING TIDE	34½ ,,

THE BEST EQUIPPED SHIPBUILDING PLANT IN THE FAR EAST,

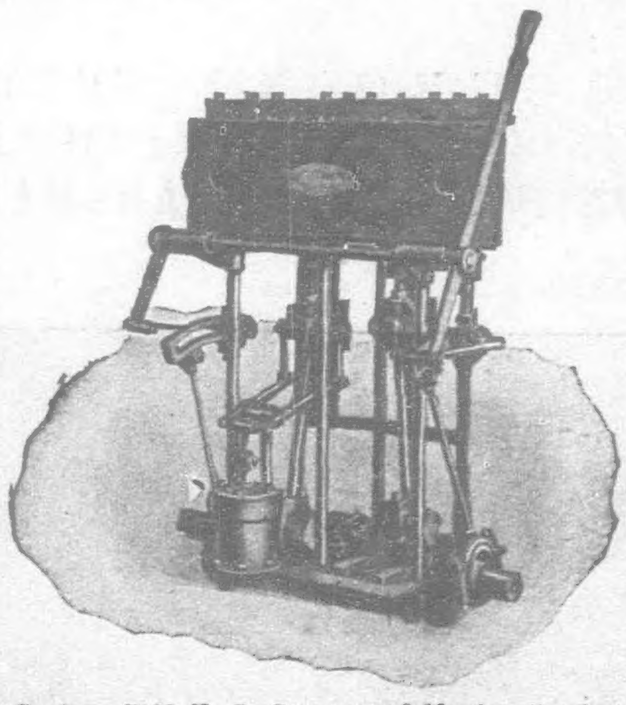
WITH SPECIAL FACILITIES FOR HANDLING THE HEAVIEST CASTINGS AND THE REPAIRING OR BUILDING OF SHIPS, ENGINES AND BOILERS, ALSO ELECTRICAL WORK.

LARGE STOCK OF MATERIAL, AND FITTINGS ALWAYS ON HAND

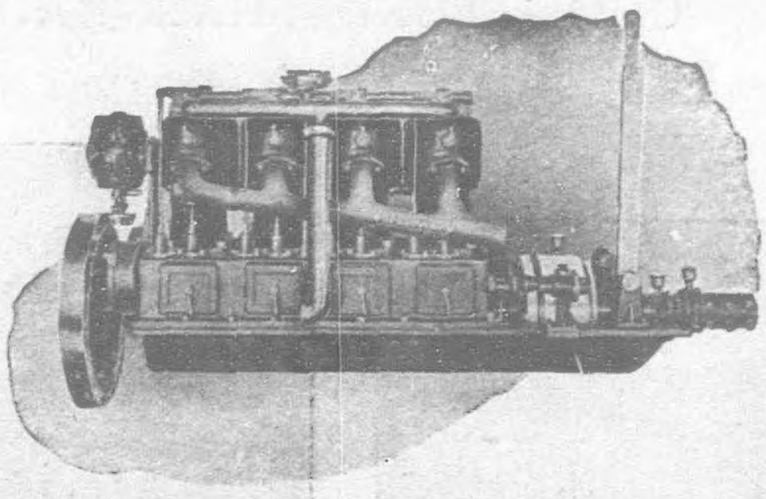
THE POWERFUL SALVAGE STEAMER "OURA-MARU" (712 TONS, 700 I. H. P.) EQUIPPED WITH NECESSARY PUMPS AND GEAR, IS ALWAYS READY AT SHORT NOTICE.

Torpedo Boats, Destroyers, Yachts, Launches, Tow-Boats and "Auto Boats"

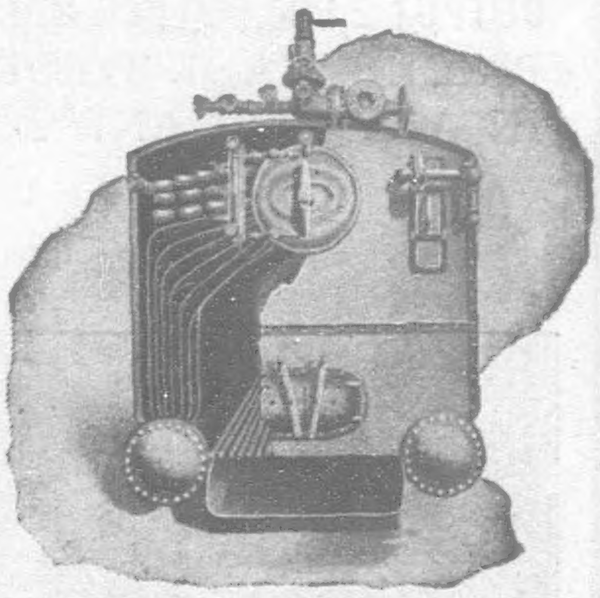
BUILDERS OF STEEL OR WOODEN CRAFT FOR ANY CLASS OF SERVICE



"Seabury" 25 H. P. Compound Marine Engine



"Speedway" Gasoline Motor



"Seabury" Safety Water Tube Boiler

OUR "SPEEDWAY" LAUNCHES HOLD THE RECORD FOR SPEED AND ENDURANCE—RECORD BREAKING LAUNCHES:—ARGO, ARTFUL, THERE-SHE-GOES, ZIPALONG, JAPANSKY, WINNINISH, COLONIA, QUEEN, SKEETER

HIGH SPEED TRIPLE EXPANSION ENGINES ARE OUR SPECIALTY

WE HAVE BUILT THE U. S. TORPEDO BOATS "BAILEY," "WILKES" AND "STEWART," 31 KNOTS, ALSO SEVERAL HUNDRED YACHTS, WITH RECORDS FROM 10 TO 22 KNOTS.

TWENTY YEARS' EXPERIENCE IN THE DESIGNING, CONSTRUCTION AND EQUIPMENT OF VESSELS

GAS ENGINE & POWER CO. and CHARLES L. SEABURY & CO., Consolidated

MORRIS HEIGHTS, New York City—Member National Association of Engine and Boat Manufacturers

FRANK L. STRONG, General Agent, MANILA, P. I.

CATALOG AND ESTIMATE ON APPLICATION

THE KAWASAKI DOCK YARD CO., LTD.

DAIREN

Cable Address: "DOCK," Dairen
Codes: A1 and A. B. C. 5th Ed.

PAID UP CAPITAL: -Y-10,000,000

THE DAIREN BRANCH has a DRY DOCK and fully equipped MACHINE and TOOL SHOPS, an IRON & BRASS FOUNDRY and other Auxiliary Works. It undertakes general CASTING WORK and the construction and repair of all kinds of VESSELS, BOILERS, ENGINES and other MACHINERY.

Powerful Salvage & Towing Boats will be supplied at Shortest Notice.

All work guaranteed to be of the highest order and to be of the most up-to-date improvements. All orders immediately attended to.

DOCK

Length	380 ft.
Width	50 ft.
Depth over Sill	20 ft.

DOCKING CHARGES VERY MODERATE



GRANITE DRY DOCK, DAIREN

Manuel Earnshaw & Co.

ENGINEERS, SHIPBUILDERS AND BOILERMAKERS



SLIPWAY AT CAVITE

Repairs to Ships, Boilers, Engines, etc.

Launch Builders, Founders in Iron, Brass, etc.

ESTIMATES FURNISHED PROMPTLY

PROPRIETORS:
Manuel Earnshaw
Tomas Earnshaw
J. Moreno Domenech
Daniel Earnshaw, Jr.

TELEPHONE 213 **P. O. BOX NO. 282**

Telegraphic Address:
"MEARNSHAW" MANILA

Codes:
A. B. C., 5th Edition
Engineering Telegraph Code and Supplement
Western Union

Slipway at Cavite



WEST WHARF OF THE KIANGNAN DOCK AND ENGINEERING WORKS, SHANGHAI

DIRECTORS:
ADMIRAL SHA,
KWONG KWOH WAH
Taotai
Imperial Chinese Navy

MANAGER:
R. B. MAUCHAN

THE KIANGNAN DOCK & ENGINEERING WORKS

SHIPBUILDERS, ENGINEERS, BOILERMAKERS AND DOCK OWNERS
SHANGHAI

CABLE ADDRESS:
"SINODOCK"

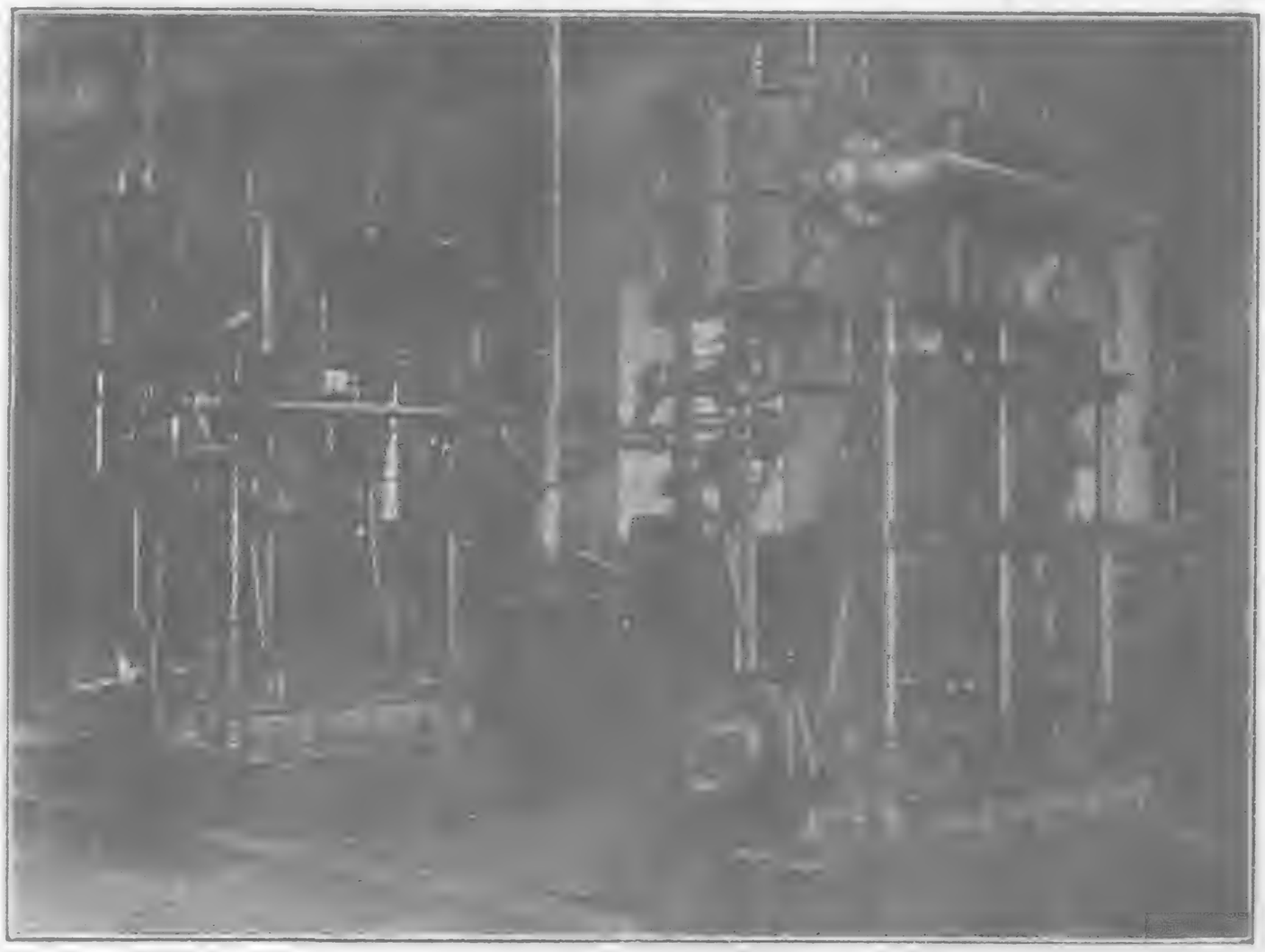
CODES:
A. B. C. 5TH EDITION,
ENGINEERING,
LIEBER'S, STANDARD

KIANGNAN DOCK

Length over all, 385′; length on blocks, 375′; water on sill, 19′; dock entrance, top, 70′, bottom, 60′.

The dock accommodates the largest coasting steamers and is equipped with complete modern facilities for handling work thoroughly and promptly.

The new machine and boiler shops, and the foundry and shipbuilding plant are equal to any this side of Suez.



TWO SETS OF COMPOUND SURFACE CONDENSERS FOR TWIN SCREW TUG BOAT TSIN TUNG. EACH OF THESE ENGINES DEVELOPED 200 H. P. WITH 145 POUNDS OF STEAM PRESSURE AND 170 REVOLUTIONS A MINUTE

CONTRACTORS FOR REPAIRING, DOCKING AND REFITTING THE VESSELS OF THE IMPERIAL CHINESE NAVY AND THE IMPERIAL MARITIME CUSTOMS

Patent slipway for small steamers and launches. Complete boat and launch building shops.

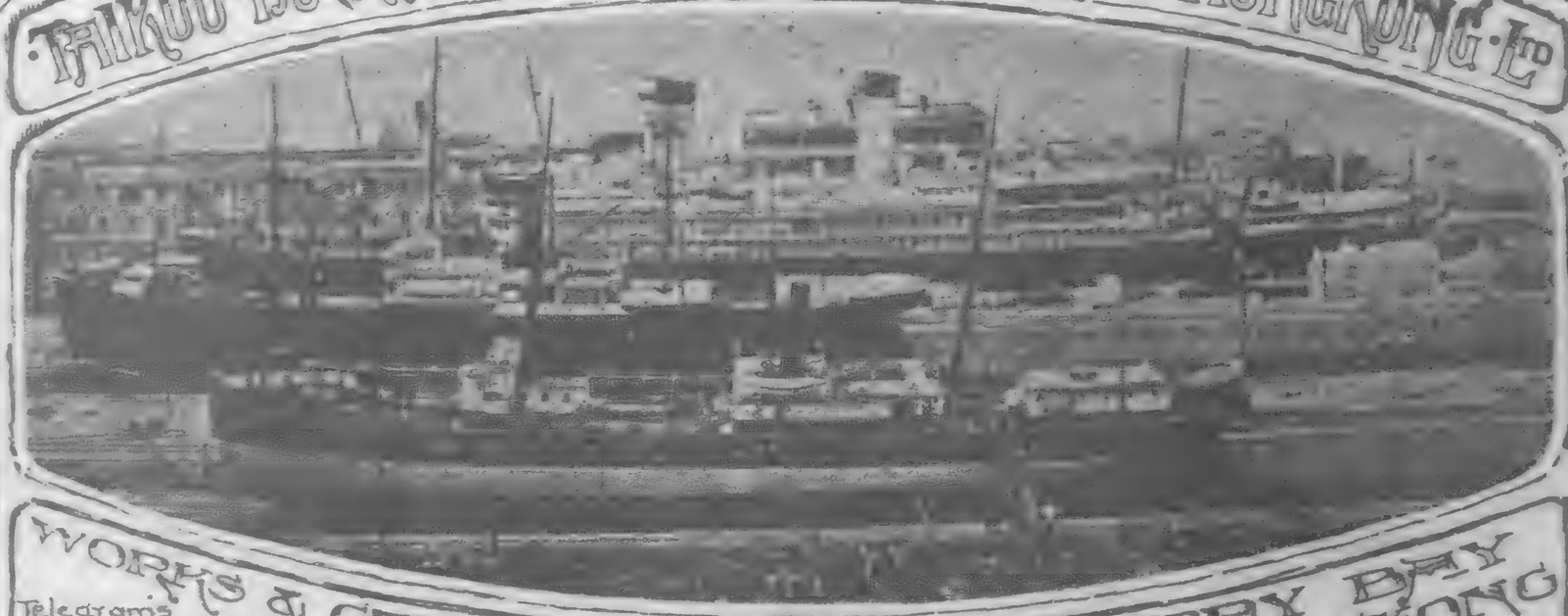
FAIKOO DOCKYARD & ENGINEERING CO OF HONGKONG LTD

Engineers, Boilermakers, Repairers

WORKS COVER AN AREA OF 53 ACRES

DRY DOCK 787 FT. × 88 FT. DEPTH 34½ FT.

SLIPWAYS
NO. 1 1030 FT.
NO. 2 993½ FT.
NO. 3 993½ FT.



WORKS & GENERAL OFFICES QUARRY BAY HONGKONG

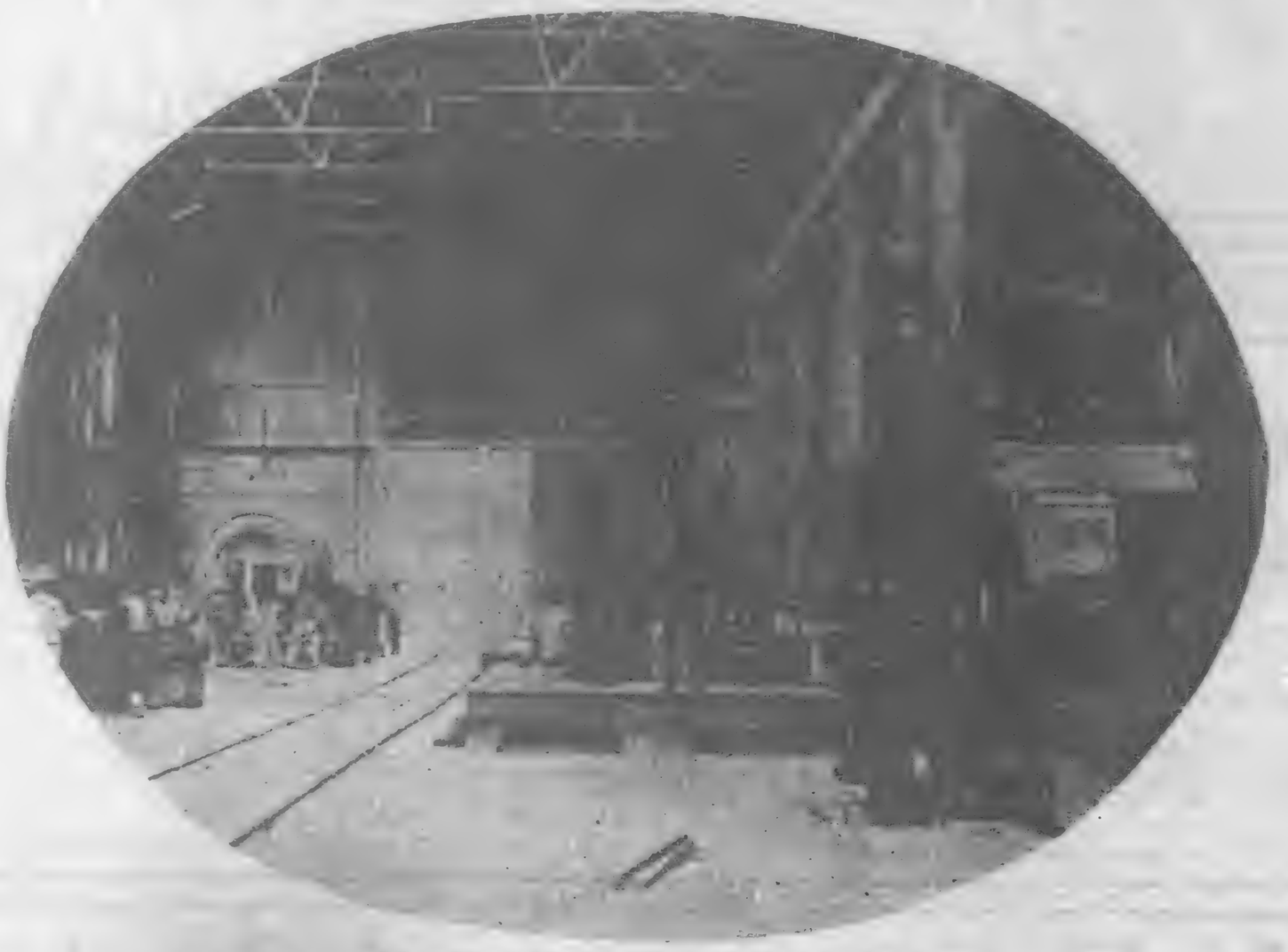
Telegrams
Fenseloaf London
Faikoodock Hongkong

Builders OF PASSENGER AND CARGO STEAMERS, TURBINE STEAMERS, STEAM YACHTS, ALL TYPES OF WAR VESSELS STEAM LAUNCHES MOTOR BOATS TUGS AND LIGHTERS

A SECTION OF THE YARD SHEWING TURBINE STEAMSHIP "CHIYO MARU" 13,600 TONS IN DRY-DOCK, TWO COASTING STEAMERS ON SLIPWAYS, AND VESSEL LYING ALONGSIDE THE SEAWALL

THE BUILDING YARD IS LAID OUT WITH FURNACES AND PLANT SUITABLE FOR BUILDING VESSELS UP TO 20,000 TONS

GENERAL MANAGERS
John Swire & Sons
8 BILLITER SQUARE, LONDON



VIEW OF PORTION OF MACHINE SHOPS

AGENTS IN HONGKONG, CHINA AND JAPAN
Butterfield & Swire

THE POWER FOR THE ESTABLISHMENT is generated by Gas Producers, on the Mond System, supplying 4 Cockerill Gas Engines of 3,000 collective horse power, driving Electrical Generators, and is transmitted throughout the Works by means of Electrical Motors.

AN ELECTRIC DERRICK CRANE capable of lifting weights up to 100 tons, is erected on the Sea Wall, and 14 Electric Overhead Travelling Cranes ranging from 5 tons to 100 tons, are fitted throughout the Workshops.

AGENTS IN MANILA AND PHILIPPINE ISLANDS

CASTLE BROS.- WOLF & SONS

THE DOCK PUMPS consist of 2 sets of Centrifugal, Electrically driven, pumps, together capable of emptying the Dock with 35 feet of water on the Cill in 2¾ hours.

THE MACHINERY in the Engine Works is laid out for dealing with the heaviest classes of Engines.

THE SLIPWAY CARRIAGES are of the latest pattern by Morton of Leith, and the Winding Gear consist, of large electrically driven winches operating massive wire cables.

TENDERS SUBMITTED AND ESTIMATES GIVEN FOR BUILDING AND REPAIRING ALL CLASSES OF VESSELS; ALSO FOR EVERY DESCRIPTION OF ENGINE AND BOILER, MECHANICAL, ELECTRICAL AND CONSTRUCTIONAL WORK

HONGKONG & WHAMPOA DOCK CO., LTD.

ENGINEERS, BOILERMAKERS, FOUNDERS, SHIP BUILDERS AND DOCK OWNERS

HONGKONG



YANGTSZE RIVER STEAMER **LOONG-WO** BUILT BY THE HONGKONG AND WHAMPOA DOCK COMPANY, LTD.

The Company has SIX GRANITE DOCKS and TWO PATENT SLIPS of the following dimensions:—

Name of Dock or Slip	*Length on Keel Blocks*	*Entrance Breadth*	*Depth Over Sill at Ordinary Spring Tides*	*Rise of Tide*	
				Springs	*Neaps*
KOWLOON	*Feet*	*Feet*	*Feet*	*Feet*	*Feet*
No. 1 Dock, Kowloon.....	576	86 ft top / 70 ft. bottom	30′	7′ 6″	3
No. 2 Dock, Kowloon	371	74′	18′ 6″	7′ 6″	—
No. 3 Dock, Kowloon.	264	49′ 3″	14′	7′ 6″	—
Patent Slip, No. 1, Kowloon...	240	60′	14′	7′ 6″	—
Patent Slip, No. 2, Kowloon...	220	60′	12′	7′ 6″	—
TAI-KOK-TSUI					
Cosmopolitan Dock.....	466	85′ 6″	20′	7′ 6″	—
ABERDEEN					
Hope Dock	430	84′	23′	7′ 6″	—
Lamont Dock.....	333	64′	16′	7′ 6″	—

THE COMPANY'S DOCKS at KOWLOON, TAI-KOK-TSUI and ABERDEEN are in efficient working order, and the attention of Captains and Shipowners is respectfully solicited to the advantages which these Establishments offer for Docking and Repairing Vessels.

For Further Particulars apply at the Offices of the Company, Queen's Buildings, No. 1, New Praya, Hongkong, or to

FINDLAY & CO.

AGENTS, MANILA, P. I.

TELEGRAPHIC ADDRESSES:
"Carmichael, Hongkong"
"Carmichael, Singapore"

CARMICHAEL & CLARKE

—CODES:—
A. B. C., 4th and 5th Editions;
Watkins'; A 1; Lieber's; Standard;
Western Union; and Scott's 10th Edition

3 Queen's Building, Hongkong -:- 8-5 Change Alley, Singapore

CONSULTING ENGINEERS, MARINE SURVEYORS AND CONTRACTORS

Agents for "SMOOTH-ON" BOILER CEMENT

For leaky boilers "Smooth-On" is indispensable. It saves boilermakers' bills and worry, as when applied the cement metalizes, becomes part of the boiler, and effects a permanent cure.

ATLAS PRESERVATIVES—BOILER, IRON AND WOOD

BOILER PRESERVATIVE E. prevents corrosion and the formation of scale. In boilers where corrosion is taking place it will effectually check it, and all scale will be entirely removed. The use of zinc plates and soda is dispensed with. By using **PRESERVATIVE E.** a boiler can be kept in better condition and at less cost. It is used by all the leading steamship lines and in many large power installations and mills. For water-tube boilers it is especially recommended, as no matter how bad the feed water no scale is deposited on the heating surfaces, nor is corrosion allowed to take place.

PRESERVATIVE A. protects from white ants and other destructive insects, and from organic decay. In conjunction with coal tar, it is an effective substitute for creosoting. For railway tracks it is unique, as it is directly preservative to wood, iron and other metals with which it comes in contact and scrub grass and weeds are eradicated.

BLUNDELL'S ALUMINUM PAINT

For all purposes. Will withstand heat, sea-water and all atmospheric conditions and has a neat and elegant appearance.

W. F. Stevenson & Co., Ltd.

ILOILO MANILA CEBU

MERCHANTS

STEAMSHIP AGENCIES

BOSTON STEAMSHIP COMPANY—BOSTON TOW BOAT COMPANY—"BEN" LINE OF STEAMERS—"INDRA" LINE OF STEAMERS—NORTHERN PACIFIC STEAMSHIP COMPANY—PENINSULAR AND ORIENTAL STEAM NAVIGATION CO. - - - - - - - -

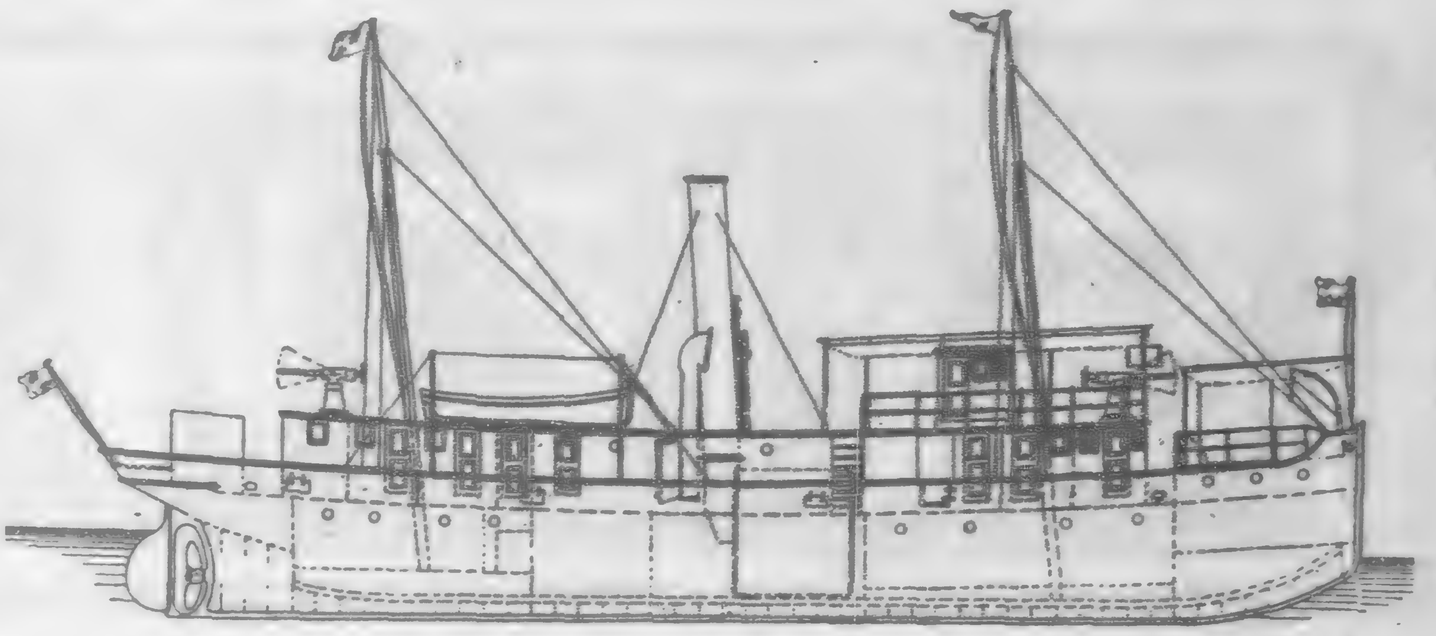
INSURANCE AGENCIES

LIFE, STANDARD LIFE ASSURANCE CO.—MARINE, MARINE INSURANCE CO., LTD.—STANDARD MARINE INSURANCE CO., LTD.—BRITISH AMERICA ASSURANCE CO.—FIRE, NORWICH UNION FIRE INSURANCE SOCIETY—SCOTTISH UNION AND NATIONAL INSURANCE CO.—NATIONAL ASSURANCE COMPANY OF IRELAND—BRITISH AMERICA ASSURANCE CO.—NEW ZEALAND INSURANCE CO. - -

4 MUELLE DEL REY, MANILA, P. I.

ENGINEERS, MACHINISTS and FOUNDERS

SHIPBUILDERS, BOILERMAKERS ELECTRICIANS



I. C. M.'S GUNBOAT "KAI-HAI" BUILT BY THE NEW ENGINEERING AND SHIPBUILDING WORKS, LTD., SHANGHAI, FOR SERVICE IN NORTH CHINA: SPEED, 11 KNOTS

COAST AND RIVER STEAMERS, TUGBOATS, LAUNCHES, LIGHTERS, PONTOONS, SHALLOW DRAFT SIDE OR STERN WHEEL STEAMERS. ENQUIRIES SOLICITED. PLANS, SPECIFICATIONS AND ESTIMATES FURNISHED. ALL CLASSES OF ENGINEERING WORK UNDERTAKEN

THE NEW ENGINEERING AND SHIPBUILDING WORKS, LTD.

SHANGHAI

PROPRIETORS OF THE

YANGTSZEPOO DOCK

THE DOCK, WORKS AND OFFICE ARE LOCATED ON THE SHANGHAI SIDE OF THE RIVER, 15 MINUTES BY ELECTRIC TRAM FROM HEART OF THE CITY

THE WORKS ARE EQUIPPED WITH THE MOST MODERN MACHINERY, CAPABLE OF HANDLING THE LARGEST MARINE ENGINEERING WORK



VIEW OF YANGTSZEPOO DOCK

PARTICULARS OF DOCK
LENGTH ON BLOCKS 455'0"
" OVERALL - 469'0"
WIDTH, ENTRANCE 74'0"
" SILL - - 64'0"
DEPTH ON SILL, (H. W. O. S. TIDES) - - - 21'0"
DEPTH ON 3'0" BLOCKS (H. W. O. S. TIDES) 19'0"
PUMPS CAN EMPTY DOCK WITHOUT VESSEL IN, IN 3½ HOURS.
WORKSHOPS LOCATED AT HEAD OF DOCK

OFFICE, DOCK & WORKS, 37 YANGTSZEPOO ROAD, SHANGHAI

TELEGRAPHIC ADDRESS: "SPEEDY." CODE: A.B.C., 5TH EDITION TELEPHONE 703. MANILA AGENT, F. L. STRONG

KOBE
CANTON
HONGKONG
SHANGHAI
TIENTSIN
NEW YORK

SHEWAN, TOMES & Co.

LONDON
OFFICE
27
LEADENHALL
STREET
LONDON, E.C.

IMPORT AND EXPORT MERCHANDISE, COMMISSION AND SHIPPING AGENTS

Telegraphic Address:
"KEECHONG," Hongkong.

Post Office Box:
No. 131B.

—GENERAL MANAGERS OF—

The China Light & Power Co., Ltd., Hongkong
The Green Island Cement Co., Ltd., "
The Hongkong Rope Mfg. Co., Ltd., Hongkong
The China Provident Loan & Mortgage Co., Ltd., Hongkong
The China and Manila Steamship Co., Ltd., Hongkong
The Canton Land Co., Ltd.
Equitable Life Assurance Society of the United States, Hongkong



WORKS OF THE GREEN ISLAND CEMENT COMPANY, LIMITED, HONGKONG

GLAZED
STONEWARE

HOUSE
DRAIN
AND
SEWER PIPES
AND
FITTINGS
IN STOCK



GLAZED
PAVING BRICKS
AND
TILES

FIRE
BRICKS
AND
FIRE CLAY

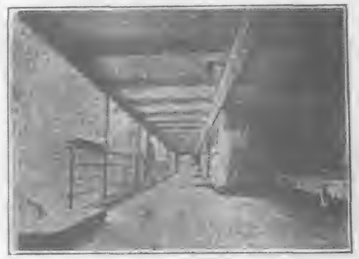
AGENTS:

Manila, P. I.,	Wm. H. Anderson & Co.	Japan,	Shewan, Tomes & Co.	Rangoon,	Geo. Gillespie & Co.	Tientsin,	Shewan, Tomes & Co.
Shanghai,	Shewan, Tomes & Co.	Calcutta,	Turner, Morrison & Co.	Bombay,	E. Spinner & Co.	Singapore, Penang,	McAlister & Co., Ltd.

AGENTS FOR

American Asiatic Steamship Co.
"Shire" Line of Steamers
J. Marke Wood's Line of Steamers
The Yangtsze Valley Company, Ltd.
The Electric Traction Co. of Hongkong, Ltd.
The American China Development Co.
The Yangtsze Insurance Association, Ltd.
World Marine Insurance Co.
Reliance Marine Insurance Co.
Union Marine Insurance Co., Ltd.
Batavia Sea and Fire Insurance Co.
The British Dominions Marine Insurance Co., Ltd.
North British & Mercantile Insurance Co.
Law Union & Crown Insurance Co.
Yorkshire Fire and Life Insurance Co.
Fireman's Fund Insurance Co. (Fire only.)
Insurance Company of North America.
The Chinese Engineering and Mining Company, Ltd.
Shanghai Pulp and Paper Co., Ltd.
The International Sleeping Car and Express Trains Co. (Trans-Siberian Railway)

CHINA AND MANILA S. S. COMPANY, LIMITED



UPPER PROMENADE DECK.

HONGKONG TO MANILA

THE NEWEST, FASTEST, AND MOST LUXURIOUS STEAMERS PLYING BETWEEN HONGKONG AND MANILA. BUILT IN 1901, ALL LATEST IMPROVEMENTS—ACCOMMODATION AMIDSHIPS—ELECTRIC LIGHTS, FANS, ETC : : : : : : : : : : :

STEAMERS
"ZAFIRO" "RUBI"
WEEKLY SAILINGS. ONLY TWO NIGHTS AT SEA

SHEWAN, TOMES & CO.—GEN. MGRS.
HONGKONG

AGENTS
WARNER, BARNES & CO., LD. MANILA
TAIT & CO. AMOY

HONGKONG ROPE MANUFACTURING COMPANY, LTD.



ROPE FACTORY.

PURE MANILA ROPE

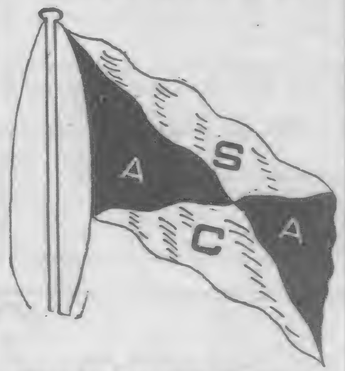
MADE FROM ONLY THE BEST WHITE MANILA HEMP.

USED BY THE BRITISH NAVY ON THE CHINA STATION, AND BY THE MAIL AND LEADING LINES OF STEAMERS

SHEWAN, TOMES & CO.
GENERAL MANAGERS

WM. H. ANDERSON & CO.
AGENTS
MANILA

AMERICAN ASIATIC STEAMSHIP CO.



REGULAR MONTHLY SAILINGS VIA SUEZ CANAL, BETWEEN

NEW YORK, ADEN, STRAITS SETTLEMENTS, MANILA, CHINA AND JAPAN,

RETURNING TO NEW YORK BY THE SAME ROUTES

THROUGH BILL OF LADING ISSUED, AND RATES QUOTED TO ALL POINTS, INSURANCE AT LOWEST RATES, SHIPMENTS TO OR FROM INTERIOR POINTS GIVEN THE MOST CAREFUL ATTENTION.

FOR RATES AND PARTICULARS APPLY TO
AMERICAN-ASIATIC S. S. CO.
10 AND 12 BROADWAY
NEW YORK

SHEWAN, TOMES & COMPANY	WARNER, BARNES & CO., LTD.
GENERAL AGENTS	AGENTS
HONGKONG	MANILA



BY DAY

"VIA VLADIVOSTOCK"

LUXURY, COMFORT AND SPEED



RESTAURANT CAR



BY NIGHT

"THE SHORT WAY HOME"

Regular Weekly Mail Passenger and Freight Service from Shanghai to Vladivostock, via Nagasaki.

Under Contract with Russian Government.

By First-Class Fast Passenger Steamers of the Russian Volunteer Fleet "Mail Service," connecting with Through Express Trains at Vladivostock.

Through Coupon Tickets issued to Moscow, St. Petersburg, London, Paris, Berlin, Vienna and all the Principal Towns in Europe.

REGULAR TWICE WEEKLY SERVICE.—TSURUGA (west coast of Nippon) to VLADIVOSTOCK, the S.S. "GOV. JAEXHKE" and "MONGOLIA" leaving Tsuruga every Wednesday and Sunday at 5 p. m. and 8 p. m. connect with the Russian State Train and International Train from Vladivostock, Friday and Tuesday, respectively.

Leave Vladivostock to Tsuruga on Sunday and Friday at 9 a. m. respectively.

REGULAR FORTNIGHTLY SERVICE between VLADIVOSTOCK to NICOLAJEWSK calling at Imperial Harbour, Pilevo, Alexandrowsky Post and de-Castry Bay will commence from the 1st of May.

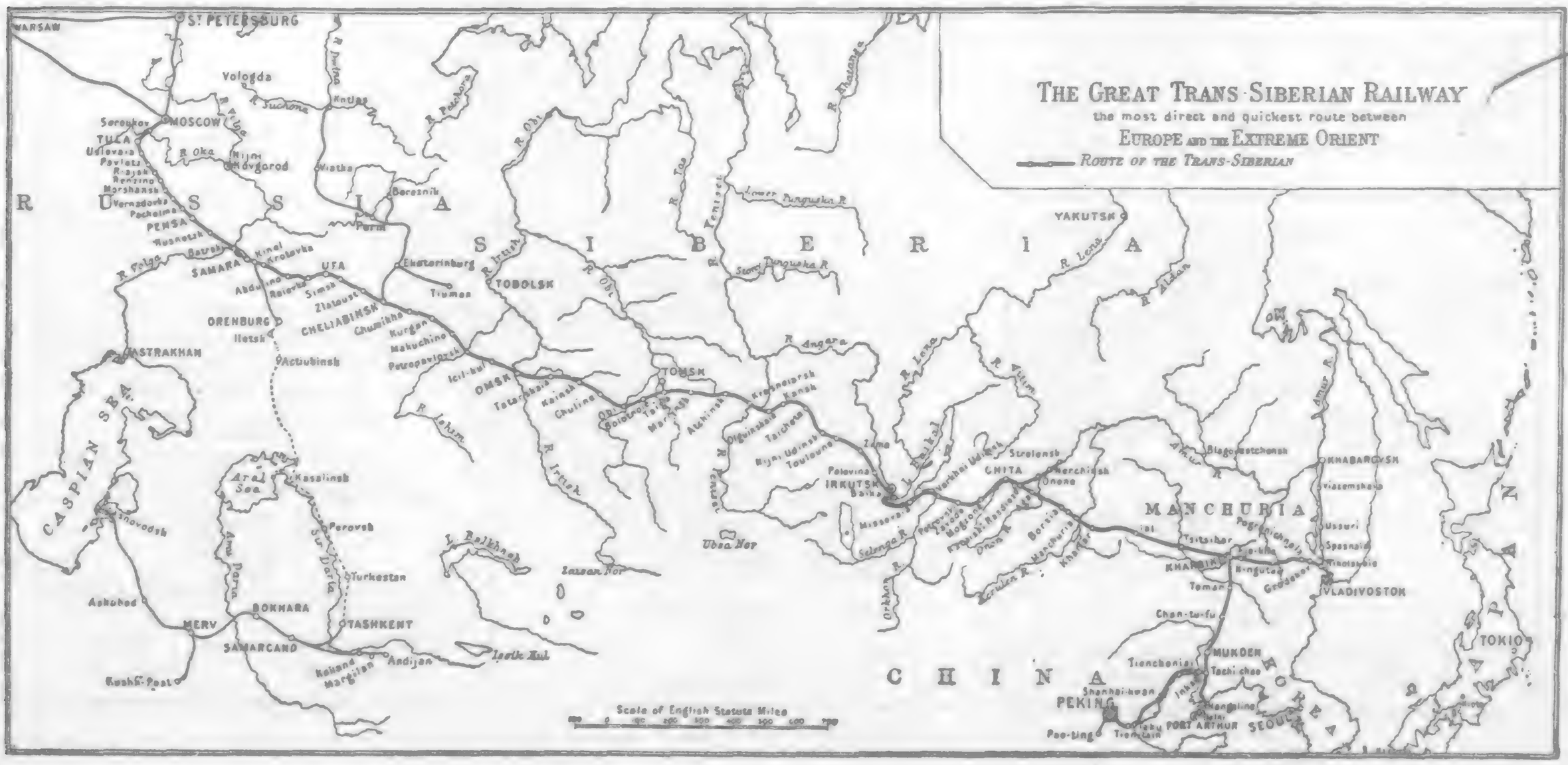
Cargo accepted for all above Ports with transhipment at Vladivostock.

TIME OF THE WHOLE JOURNEY

	From Shanghai	*From Tsuruga*
To MOSCOW	15 days	12½ days
To ST. PETERSBURG	15½ "	13 "
To BERLIN	17 "	14½ "
To PARIS	18 "	15½ "
To LONDON	18 "	15½ "

For further particulars, apply to

AT SHANGHAI:—**CHINESE EASTERN RAILWAY CO.**, 3, Kiukiang Road.
AT NAGASAKI:—**MESSRS. HOLME, RINGER & CO.**, Agents of the Russian Volunteer Fleet.
AT TSURUGA:—**N. D. FEDOROFF**, Agent of the Russian Volunteer Fleet.
AT VLADIVOSTOCK:—**THE COMMERCIAL AGENCY** *of The Chinese Eastern Railway Co.*
AT HARBIN:—Office of **THE CHINESE EASTERN RAILWAY CO.**



VULCAN IRONWORKS, LIMITED
SHANGHAI

ESTIMATES given for every description of Engineering and Constructional work and repairs, including supplying and installing of HOT WATER and STEAM HEATING in all its branches and HOT and COLD WATER SUPPLIES.

THE WORKS are electrically driven, and are equipped throughout with up-to-date machinery and labour saving devices, including an HYDRAULIC PLANT, and appliances to undertake constructing or repairing SHIPS, ENGINES, BOILERS, etc.

EXPERIENCED EUROPEAN STAFF SUPERVISES ALL BRANCHES OF WORK

ENGINEERS, SHIPBUILDERS, BOILERMAKERS, ELECTRICIANS, IRON AND BRASS FOUNDERS

ENQUIRIES SOLICITED

OFFICE AND WORKS:
45 YANGTSZEPOO ROAD, SHANGHAI

The I. C. S.
CAN PREPARE
YOU for any position in

the list below. No matter how little or how much training you have now the up-to-date Courses of the *International Correspondence Schools* are worth investigating. Write to the nearest office (Shanghai or Manila) and tell what course you are interested in. We will send you full information.

Electrical Engineering
Civil Engineering
Commercial Law
Navigation
Illustrating
Chemistry
Railroad Construction
Mining Engineering
Textile Manufacture
Electric Lighting
Architecture
Surveying
Mechanical Engineering
Mechanical Drawing
Marine Engineering
Bookkeeping
Stenography
Teaching

ADDRESS:
China Agency, I. C. S.
Office No. 19, Nanking Road No. 11 Shanghai, China
or
Philippine Agency, I. C. S.
Office No. 19, Watson Building
MANILA, P. I.

Do It Today

SANTA MESA ROPE WORKS
HIGHEST GRADE MANILA ROPE

Average Breaking Load After Three Tests:

2	Inch	Rope	4,037 Pounds
3½	"	"	16,670 "
5	"	"	23,728 "

Factory: 1000 Calle Valenzuela
Cable Address: SANTAROPE
Code: Western Union Universal

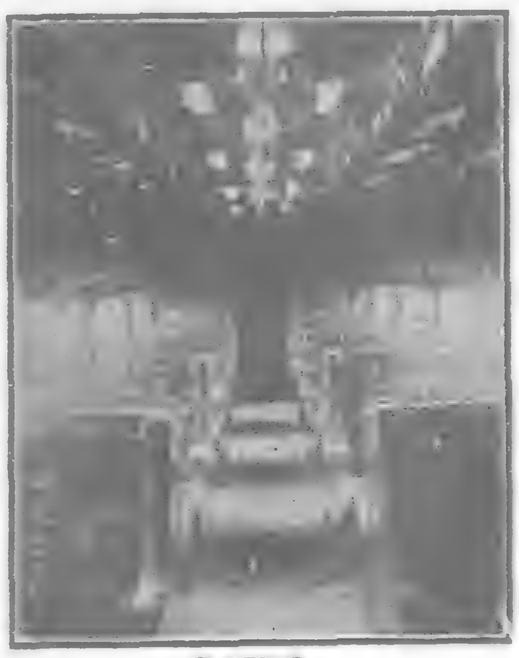
H. R. COOPER & COMPANY
AGENTS
7 PLAZA MORAGA MANILA, P. I.

CORRESPONDENCE SOLICITED





South Manchuria Railway Company



SLEEPER

SHORTEST AND QUICKEST ROUTE BETWEEN THE FAR EAST AND EUROPE, VIA DAIREN



INTERIOR PULLMAN DAY COACH

Main Railway Line THRICE WEEKLY EXPRESS TRAIN SERVICE, composed of excellently equipped Sleeping, Dining and 1st class Cars, is operated between Dairen and Changchun in connection with the Trans-Siberian Express Trains and with Shanghai Mail Steamers.

BRANCH RAILWAY LINES:

RYOJUN LINE—For Ryojun (Port Arthur), 1½ hours from Dairen.

YINGKOU LINE—For Yingkou (Newchwang), 40 minutes from Tashihchiao Junction.

FUSHUN LINE—For the famous Fushun Colliery from Suchiatun Junction.

ANTUNG-HSIEN LINE—A light railway from Mukden to Antung-Hsien connecting with the Korean Railway.

DAIREN-SHANGHAI DIRECT STEAMER SERVICE—is maintained TWICE-WEEKLY by the S.S. "Kobe Maru" and "Saikio Maru" (2,877 tons each).



SOUTH MANCHURIA RAILWAY, YAMATO HOTEL, PORT ARTHUR



YAMATO HOTEL, DALNY

TICKET AGENTS The International Sleeping Car & Express Trains Co. and Messrs. Thos. Cook & Son.

RAILWAY HOTELS YAMATO HOTEL (Tel. Add.: "Yamato") At Dairen, Port-Arthur and Changchun, all under the Company's management.

THROUGH PASSENGER TICKETS—In conjunction with the Imperial Japanese Government Railways, the Imperial Railways of North China, the Osaka Shosen Kaisha and the Company's own steamers. Through Passenger Tickets are issued between the Company's principal stations and the undermentioned points:—

Hsinminfu	Peking	Kumamoto	Shimonoseki	Osaka	Tokio
Shanhaikuan	Shanghai	Hakata	Hiroshima	Kioto	&c.
Tientsin	Nagasaki	Moji	Kobe	Nagoya	

SOUTH MANCHURIA RAILWAY COMPANY, Dairen

Tel. Ad.: MANTETSU -:- Codes: A. B. C., 5th Ed., A1 and Lieber's



The Line of a Hundred Pagodas



PASSENGERS TO THE YANGTSZE RIVER PORTS SHOULD TAKE THE STEAMER AT NANKING, THUS ENJOYING A TRIP THROUGH THE INTERESTING LAND OF PAGODAS AND "THE GARDEN OF CHINA." NANKING, THE SOUTHERN CAPITAL OF CHINA, WITH ITS MANY INTERESTING SIGHTS, THE CELEBRATED MING TOMBS, AND OTHER ATTRACTIONS, CAN BE SEEN IN TWO DAYS' TRIP FROM SHANGHAI. THE FIRST AND SECOND CLASS COACHES OF THE S-N. RAILWAY COMPARE WITH THE BEST IN EUROPE OR AMERICA FOR COMFORT AND SERVICE. TWO EXPRESS TRAINS DAILY.

SAN FRANCISCO TO THE EAST

The Overland Limited

Electric-lighted parlor sleeping cars, combination buffet-library and drawing-room observation cars. Diner all the way

The Last Word in Luxurious Travel

Over the scenic route and straight across the Great Salt Lake by way of Lucin-Ogden cut-off, a wonderful triumph of modern engineering

SOUTHERN PACIFIC

CADWALLADER GIBSON LUMBER CO.

WHOLESALE AND RETAIL DEALERS AND EXPORTERS IN

PHILIPPINE MAHOGANY

Hardwood Timber for Bridge Construction and Railway Sleepers a Specialty : : : :

We Own Two Big

Sawmills and Furniture Factory

Gibson Furniture

BLINDS, SASH, DOORS, ETC., MANUFACTURED BY

Up-to-date Machinery

OFFICE FIXTURES, SHOW WINDOWS, STORE FURNISHINGS, DESKS, ETC.

ESTIMATES FURNISHED

Yard Office . . . . . { 302 CALLE SAN MIGUEL, MANILA / SIMAY, BATAAN, P. I.

Cable Address: CAHOY

Codes: Western Union, Universal Edition; A. B. C.

Export and Import Lumber Co.

SUCCESSORS TO

The B. W. Cadwallader Company

P. O. Box 433 MANILA, P. I. Telephone 363

Importers of Oregon Pine Lumber

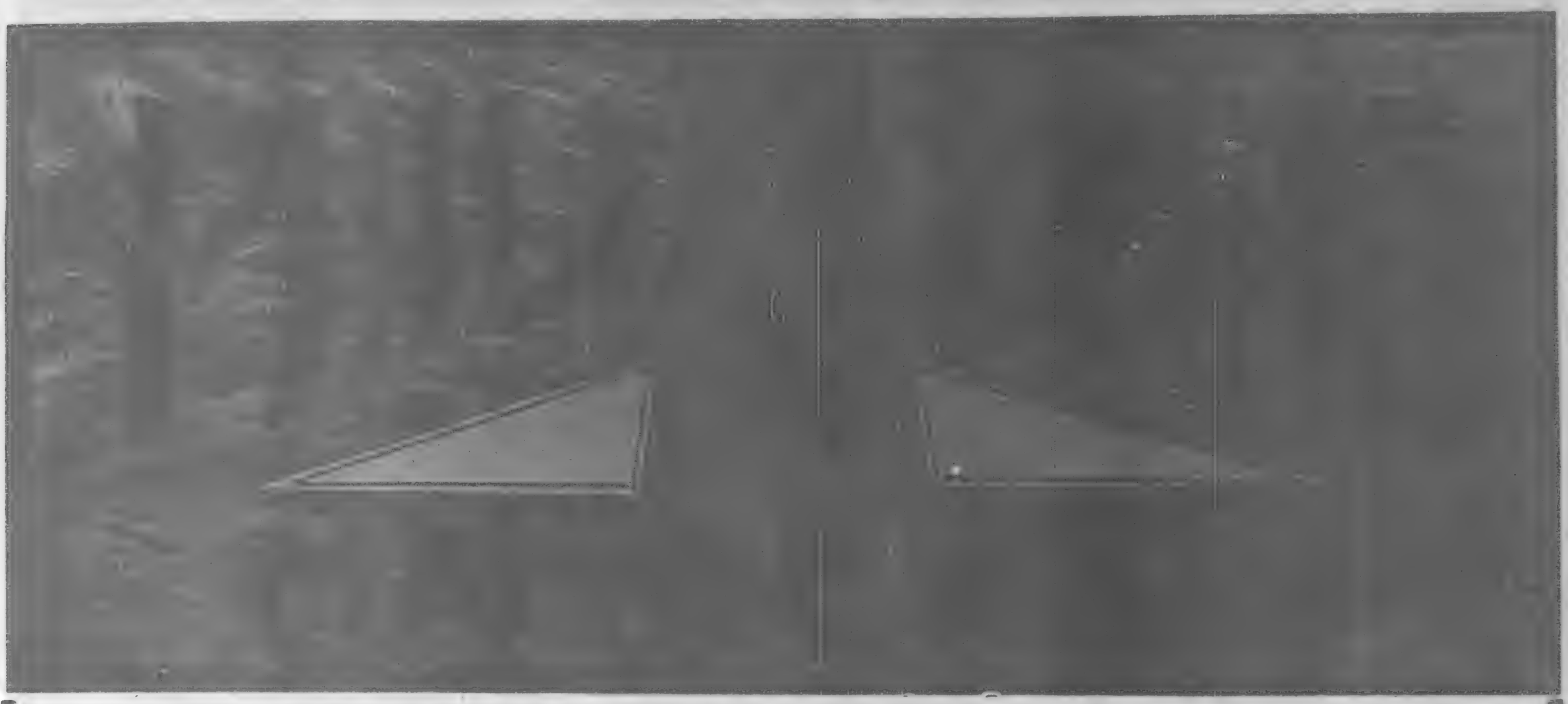
Exporters of Philippine Hardwood Lumber, Sleepers and Timber for Railroad Construction, etc. : : : : : :

W. W. PAYNE

President and General Manager

Mills and Office

51 CALLE TANDUAY MANILA, P. I.



FOR FURNITURE, CABINET WORK, INTERIOR TRIM, CAR BUILDING, ETC.

Location of Forests and Mill at Sagay, Negros Occidental, Island of Negros, P. I.

Capacity of Mill: 100.000 Ft. B. M. per Day

INSULAR LUMBER CO.

Lack & Davis Bldg.
Calle Echague, Manila, P. I.

No. 20 Broad St.,
New York City

Cable Address:
"BANGA"—A. I. CODE

Main Office:
ZAMBOANGA, MINDANAO, P. I.

The Port Banga Lumber Co., Inc.

Mills: Port Banga, Sibugay Bay, Mindanao, P. I.

OUR SPECIALS:

YACAL
MOLAVE
GUIJO
LUMBAYAO
BATITINAN
LAUAN
PAGATPAT

WE ALSO HAVE:

CUBI
MANGACHAPUY
IPIL
EBONY
CAMAGON, Etc.

WHOLESALE ONLY!

Posts, Pilings, R. R. Ties, Bridge Timber, Telegraph.

Poles, Telegraph Cross Arms, and Lumber cut to dimensions.

Temporary Piles of 4 Group timber 10 to 70 ft. long.

Permanent Piles of Liusin, Molave, 10 to 70 feet long.

Total amount cut and manifested 12 months ending October 1st, 1908, 3,034,651 Board Feet.

The Harbor at Port Banga, where largest Ocean-going vessels can enter, is safe at all seasons of the year and anchorage is good. Ships always promptly loaded and we give absolute guarantee that material will be delivered alongside as rapidly as ship can take it. Ship Charter can be based on these facts. One to two ships per month calling at Port Banga makes it possible to make prompt deliveries.

CONOLITE

The New substitute for wood.

Cheaper, more durable, non-inflammable and easily laid in form of cement.

Extensively used by the British Admiralty on Warships in place of wooden decks.

Particularly suitable for flooring of re-inforced concrete buildings, offices, verandahs, godowns, etc.

For full particulars apply to the Sole Agents,

Samuel, McGregor & Company, Limited

5 Canton Road

SHANGHAI

who are prepared to make Contracts.

California-Manila-Lumber Commercial Co.

Cable Address:
"HOOPTON"

Codes:
Western Union, Universal Edition—Lybo
A.B.C. 4th Edition—Century

Telephone 290
P O. Box 782

IMPORTERS OF
OREGON PINE REDWOOD
and all kinds of Hardware

Representatives of
Leading American Manufacturers of Machinery,
Building Material, Engineering Supplies, Etc.

Representatives of

The Trussed Concrete Co., *Detroit, Mich.*
Acetylene Apparatus M'fg. Co., *Chicago, Ill.*
A. L. Canfield, *New York City.*
Contracting Plant M'fg. Co., *New York City.*
Higgins Manufacturing Co., *Newport, N. J.*
Lobee Machinery Co., *Buffalo, N. Y.*
McCray Refrigerating Co., *Kendallville, Ind.*
Morreau Gas Fixture M'fg. Co., *Cleveland, O.*
Shoel Kopf, Hartford & Hanna Company, *Buffalo, N. Y.*
South Bend Chilled Plow, *South Bend, Ind.*
J. B. Wise & Co., *Watertown, N. Y.*

Offices: 10-11-12 LACK & DAVIS Building, Calle Echague, Manila, P. I.

CORRESPONDENCE SOLICITED

Warner, Barnes & Co., Ltd.

Manila, London, New York, Iloilo, Cebu, Albay, Samar, Leyte

General Merchants, Insurance and Shipping Agents
Importers and Exporters

Steamship Agencies:
International Sleeping Car & Express Trains Company
The Great Trans-Siberian Route
China & Manila S. S. Co., Ltd.
Bucknall S. S. Lines, Ltd.
Nippon Yusen Kaisha
White Star Line
Bibby Line.

Express Companies
China Express Co.
Geo. W. Wheatley Co.'s Express
United States Express Co.
Neale and Wilkinson Express Co.

General Managers
The Pasig Steamer & Lighter Co., Ltd.

Insurance Agencies
Royal Exchange Assurance Corporation
Law Union & Crown Insurance Co.
State Fire Insurance Co., Ltd.
China Fire Insurance Co., Ltd.
Maritime Insurance Co., Ltd.
Western Assurance Co.
Yangtsze Insurance Association, Ltd.
Tokio Marine Insurance Co., Ltd.
Manufacturers Life Insurance Co.

Telegraphic Address:—WARNER
P. O. Box 294
Tel. Nos. 228—104—610

No. 7 Carenero
MANILA, P. I.



H. M. S. "DREADNOUGHT"
18 Babcock & Wilcox Patent Water Tube Marine Boilers
23.000 HORSE POWER

Babcock & Wilcox Water Tube Boilers

THE STANDARD FOR ALL NAVIES

A Partial List of Battleships in which our Boilers are Fitted

BRITISH NAVY
Battleship KING EDWARD VII
Battleship DOMINION
Battleship COMMONWEALTH

UNITED STATES NAVY
Battleship NEBRASKA
Battleship RHODE ISLAND
Battleship NEW JERSEY

19 SZECHUEN RD
SHANGHAI
Telephone, 1944
Telegrams:
"GOLDFLOWER"
Codes: A. B. C.,
5th Ed. Lieber's
and Engineering

DAVID W. BELL

SHANGHAI CHINA

SOLE REPRESENTATIVE IN CHINA FOR THE ABOVE FIRM

General Electric Company

Electrical Equipments and Supplies

Complete equipments for street railways, power and lighting plants, hydro-electric power plants and high tension transmission lines. Alternating and direct current motors for industrial power purposes

EASTERN AGENTS

BAGNALL & HILLES, Yokohama, Japan.
MITSUI & CO., Tokio, Japan.
GENERAL ELECTRIC CO. (Special representative for the Far East) 23 Water Street, Yokohama, Japan.
FEARON, DANIEL & CO. } Joint Agents, No. 4 Yuen Ming Yuen Road, Shanghai, China.
ANDERSEN, MEYER & CO. }
FRANK L. STRONG, MANILA, P. I.

Principal Office: Schenectady, N. Y., U. S. A.

CABLE ADDRESS: "BRIMAL" SHANGHAI

CODES: A. B. C. 5TH ED. ENGINEERING 2ND EDITION WESTERN UNION

BRIGHTEN, MALCOLM & CO., LTD.

8 KIUKIANG ROAD SHANGHAI

TELEPHONE NO. 2794

ENGINEERS AND CONTRACTORS
SOLE AGENTS IN CHINA FOR

Callender's Cable & Construction Co., Ltd.

MANUFACTURERS OF ALL CLASSES OF ELECTRIC CABLE

SPECIFICATIONS DRAWN UP AND ESTIMATES GIVEN FOR ALL CLASSES OF ENGINEERING WORK -:- -:- -:- -:- -:- -:- -:-
SPECIALISTS IN ELECTRIC LIGHT AND POWER PLANTS, LIGHT ELECTRIC RAILWAYS AND TRAMWAYS AND ELECTRIC LIFTS -:- -:- -:- -:- -:- -:- -:-

TENDERS SUBMITTED FOR STEAM RAILWAY MACHINERY AND PLANT -:- -:- -:- -:- -:- -:-
LOCOMOTIVES, RAILS, SLEEPERS -:- -:- -:- -:- -:- -:- -:- -:-
PASSENGER AND FREIGHT CARS, ETC. -:- -:- -:- -:- -:- -:-
MACHINE TOOLS OF ALL DESCRIPTIONS -:- -:- -:- -:- -:-



LAYING CALLENDER MAINS, VERA CRUZ, SOUTH AMERICA

Sole Agents

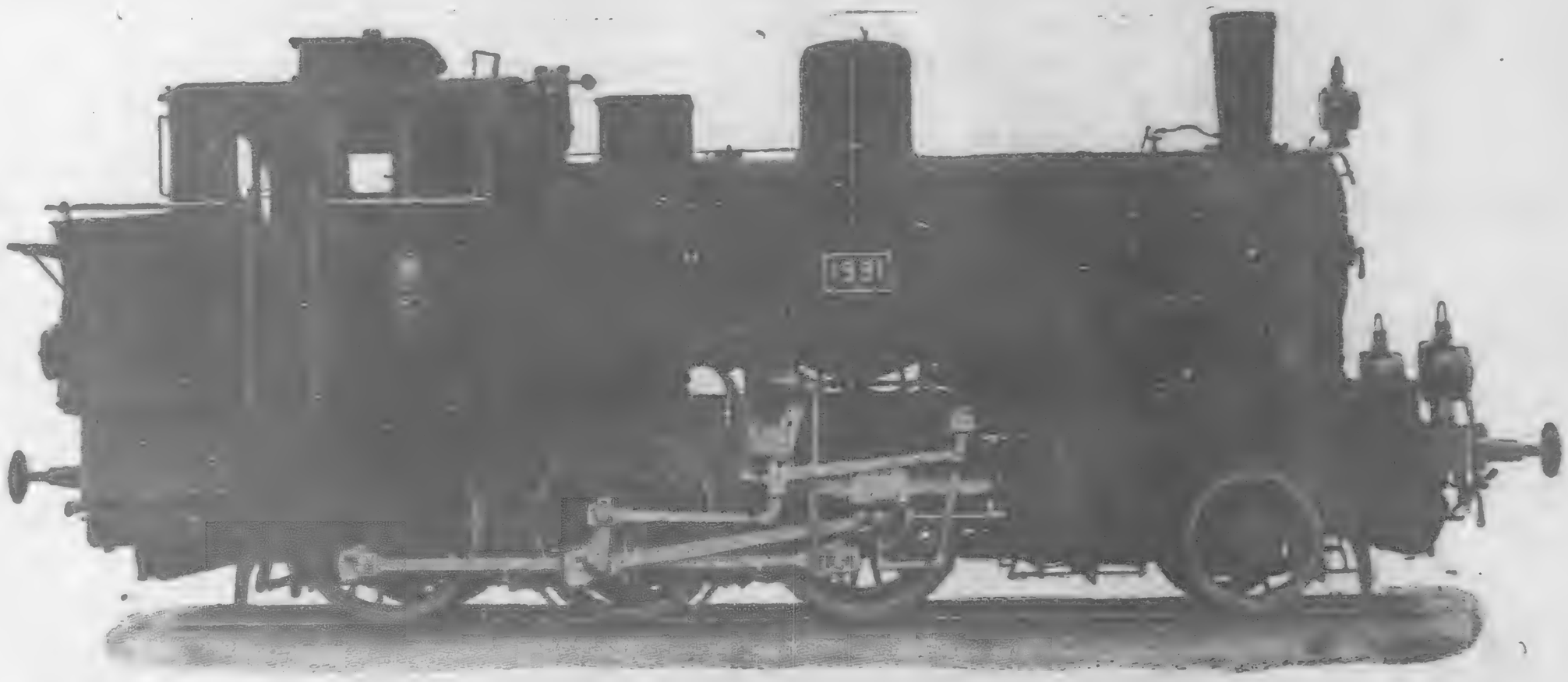
G.M. CALLENDER & CO. Ltd., Damp course and Bitumen Solutions.
PETER BROTHERHOOD, Ltd., High Speed Engines.
J. W. BROOK & CO., Ltd., Motor Cars and Boats.
LEEDS COPPER WORKS, Tubes.

Sole Agents

MECDRUM BROS., Automatic Stokers
BECKFLAME LAMP CO., Ltd., Arc Lamps.
HAYWARD TYLER CO., Ltd., Hydraulic Machinery.
H. HOLDEN & SON, Ltd., Paints.

MACHINERY OF ALL KINDS

RAILWAY MATERIAL AND SUPPLIES



LOCOMOTIVES, PASSENGER AND FREIGHT CARS,
RAILS, SWITCHES, etc.

AGENTS FOR:

Felten & Guilleaume-Lahmeyer Werke, Frankfort/ Main, Electrical Supplies : : : :

Gasmotoren Fabrik Deutz, Cologne-Deutz, Original "OTTO" Gas and Oil Engines and Suction Gas Plants : :

Haniel & Lueg, Duesseldorf, Hydraulic and Mining Machinery, Heavy Steel Castings :

SIEMSSEN & CO.
ENGINEERS & CONTRACTORS
SHANGHAI
HONGKONG, CANTON, HANKOW
TIENTSIN, TSINGTAU

SPECIFICATIONS AND ESTIMATES GIVEN
INDUSTRIAL PLANTS OF EVERY DESCRIPTION

All Kinds of Machine Tools Pumps
Locomobiles Oil Engines Dynames and
Motors carried in stock at Shanghai

AGENTS FOR:

Orenstein & Koppel, Ltd., Berlin, Railway Material : : : :

R. Wolf, Magdeburg-Buckau, Patent Superheated Steam Locomobiles : : : : :

Weise & Monski, Halle/ Saale, Pumping Machinery : : :

SIEMENS SCHUCKERT

CHINA AGENCY

Electrical Engineers and Contractors

16 Kiukiang Road, Shanghai, and at Tsingtau, Hankow, Tientsin

Representing the Siemens Companies:

SIEMENS BROTHERS DYNAMO WORKS - London and Stafford
SIEMENS BROTHERS & COMPANY - - London and Woolwich
SIEMENS SCHUCKERTWERKE - - - - Berlin and Nuernberg
SIEMENS & HALSKE - - - - - - - Berlin and Nonnendamm
GEBRUEDER SIEMENS - - - - - - - Berlin and Lichtenberg

Cable Address: FOR SHANGHAI, HANKOW & TIENTSIN, "MOTOR;" TSINGTAU, "SIEMENS"
Codes: PRIVATE, LIEBER'S AND A-I.



ELECTRIC LIGHT AND POWER PLANT AT TSINGTAU, CHINA, INSTALLED BY SIEMENS SCHUCKERT, CHINA AGENCY

Plans and Estimates Given for all Descriptions of Electrical Machinery and Apparatus

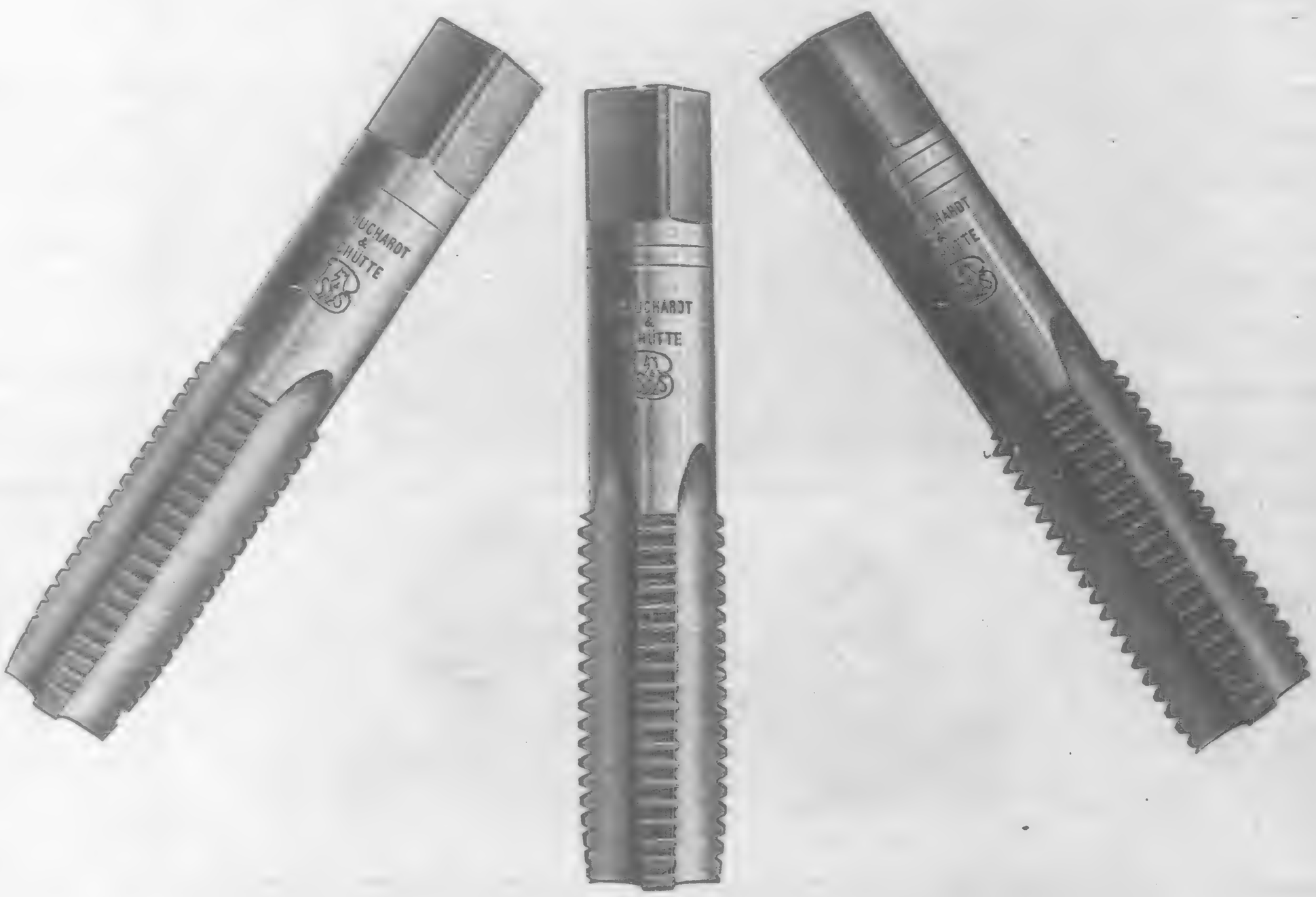
COMPLETE EQUIPMENTS FOR

LIGHTING, POWER AND TRACTION PLANTS

Electrical Pumping, Winding, and Hauling Plants. Builders of the "Zoelly" Steam Turbine

SHANGHAI MACHINE COMPANY

BUCHHEISTER & CO., Proprietors



Large Stock of Machines and Tools of Every Description

SHANGHAI, HANKOW

SHANGHAI
HONGKONG
CANTON
HANKOW
CHUNGKING
TIENTSIN
TSINGTAU

ARNHOLD, KARBERG & CO.

TSINANFU
NEWCHWANG
NEW YORK
BATTERY PL.
LONDON
BERLIN

General Agents for

ELECTRICAL GENERATORS, SUPPLIES, ETC.

Allgemeine Electricitaets Gesellschaft (A. E. G.) Berlin.

ELECTRIC TRAIN LIGHTING

Electric Train Lighting Co. Berlin.

RAILWAY MATERIAL

Arthur Koppel Ltd., Berlin,

STEAM LOCOMOTIVES

The Baldwin Locomotive Works, Philadelphia.

STEAM PUMPS

The A. S. Cameron Steam Pump Co., New York.

TELEPHONE APPARATUS

The Western Electric Co., New York and Chicago.

FLOUR MILLING MACHINERY

The Nordyke & Marmon Co., Indianapolis.

BLASTING POWDER, FUSES, ETC.

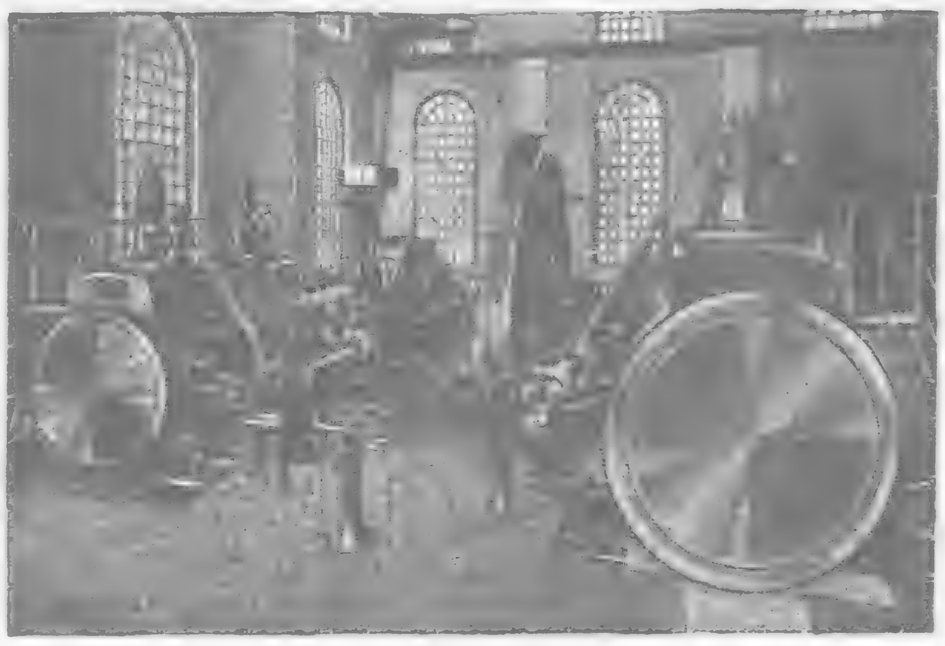
Rendrock Powder Co., New York.

REINFORCED CONCRETE CONSTRUCTION

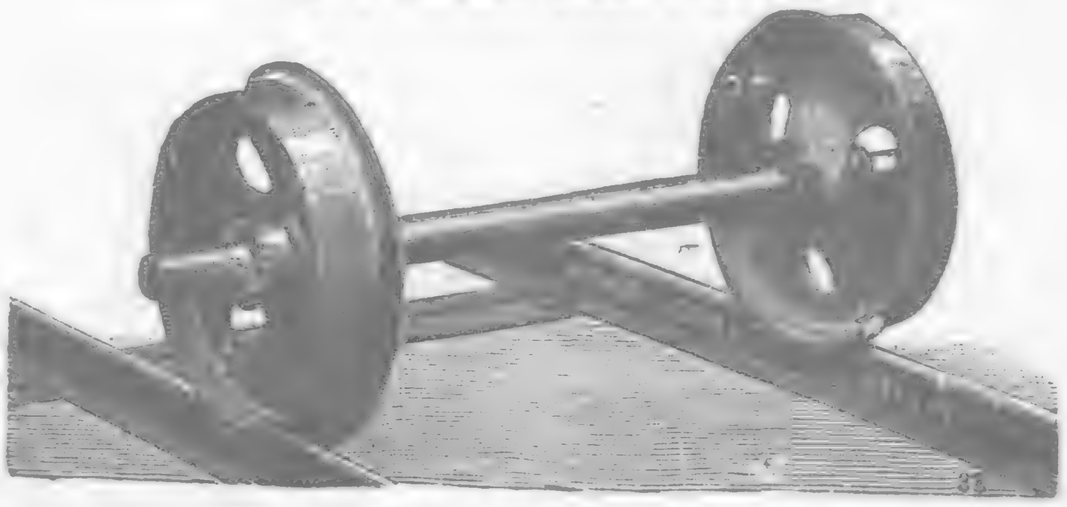
Trussed Concrete Steel Co. (Kahn System), Detroit.



BALDWIN LOCOMOTIVE



A. E. G. ELECTRICAL PLANT



RAILWAY WHEELS AND AXLE

General Agents for

CONCRETE MACHINERY

Ideal Concrete Machinery Co., South Bend.

ROOFING

Paraffine Paint Co., San Francisco.

MOTORS, TORPEDO AND MINING MATERIAL

Berliner Maschinenbau A. G. vorm Schwarzkoff, Berlin.

ENGINES, PUMPS, BOILERS, ICE MACHINES, ETC.

A. Borsig, Tegal, Berlin.

AMMUNITION, ETC.

Deutsche Waffen and Munitions Fabriken, Berlin, Karlsruhe.

ARMY RIFLES, ARMS, ETC.

Waffenfabrik Mauser A. G., Obendorf, Neckar.

GUNS AND AMMUNITION

Skodawerke A. G., Pilsen.

MACHINE TOOLS

Ludw. Loewe, A. G., Berlin.

WAR VESSELS

Stettiner Maschinenbau A. G. "Vulcan."

HEAVY MACHINE TOOLS

Niles-Bement-Pond Co., New York.

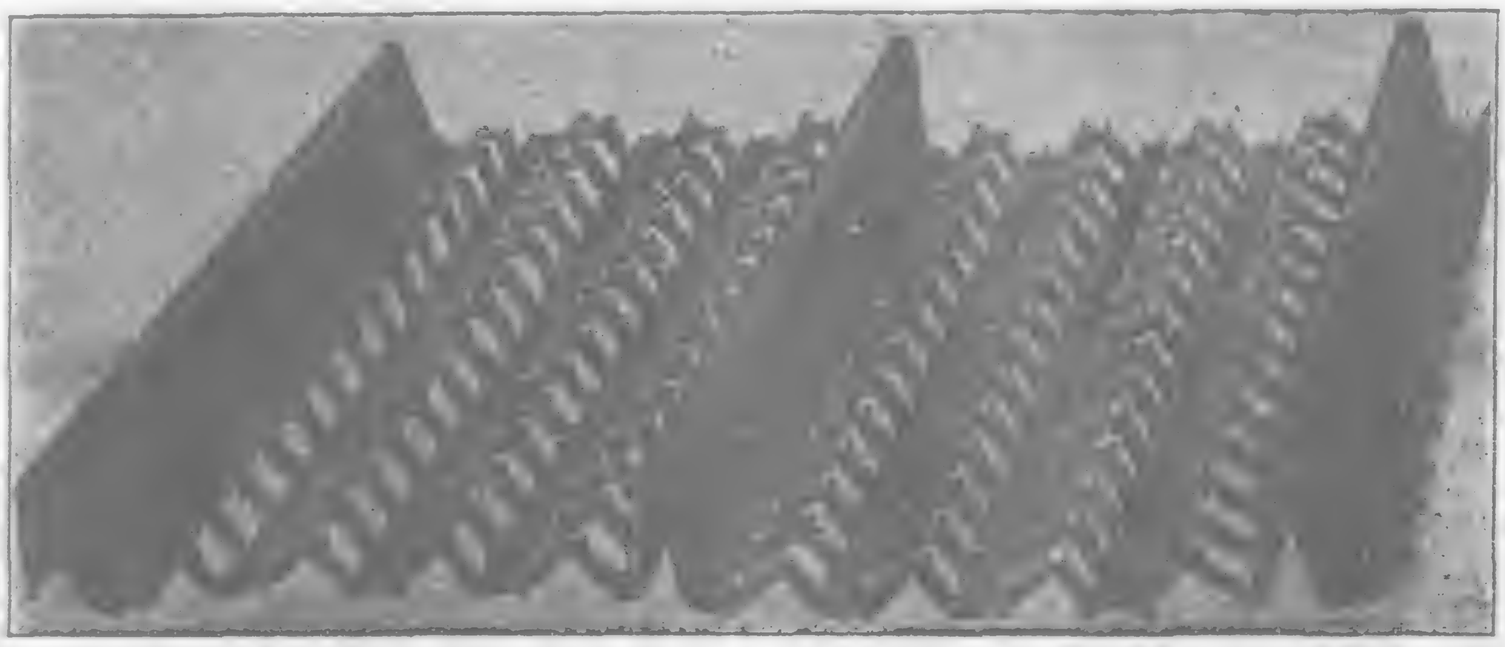
BELTING

Gandy Belting Co., Baltimore.

DRILLING MACHINERY

Davis Calyx Drill Co., New York.

Star Drilling Machine Co., Akron, Ohio.



HY-RIB USED EXTENSIVELY FOR WALLS, SIDINGS, ROOFS, PARTITIONS, SUSPENDED CEILINGS AND FURRING

STEEL

Jonas & Colver, Ltd., Sheffield.

COTTON MILLING MACHINERY

Asa Lees & Co., Ltd., Oldham.

MOTOR BOATS

Carl Meissner, Hamburg.

DIESEL ENGINES

Diesel Engine Co., Ltd. London.

ENGINEERING AND ELECTRICAL DEPARTMENTS

MACHINERY



"BROWETT-LINDLEY" 3-CRANK TRIPLE EXPANSION FORCED LUBRICATION ENGINE COUPLED TO WESTINGHOUSE 500 K. W. GENERATOR

ELECTRIC LIGHT & POWER PLANTS. RAILWAY, MINING, MILL AND INDUSTRIAL PLANTS AND EQUIPMENT; SAFETY WATER-TUBE BOILERS; STEAM TURBINES; PUMPS, GAS ENGINES, PRODUCERS, ETC. ENGINEERING AND ELECTRICAL SUPPLIES

新旗昌洋行告白

本行機器在上海英租界圓明園路八號　電話三千四百八十七號

本行經理
各種機器如發
電機原動機開
閉機水汽引擎
水汽輪水具凝
氣機抽筒煤氣
引擎發煤氣機
鍋鑪電燈線裝
具燈上所用之
變流器并承裝
各種電燈完全
器具及曳物機
其餘各機器房
火車及各種車
輛需用之器具
礦中應用各式
機器暨航海用
之原動機溫冷
自來水之機器
汽車等等不及
詳載欲知詳細
請
駕臨詢問或函
詢均可自當詳
細奉答

SOLE REPRESENTATIVES IN CHINA FOR

British Insulated & Helsby Cables Ltd. (Hongkong and S. China).
British Westinghouse Electric & Manufacturing Co., Ltd.
Browett Lindley & Co., Ltd., England.
Barber Asphalt Paving Co., U. S. A.
Fraser & Chalmers Ltd., England.
J. G. Brill Co.
Lima Locomotive & Machine Co., U. S. A.
Manning, Maxwell & Moore, U. S. A.
Power Pulley Co., Ltd., England.
Power Gas Corporation Ltd., England, (except bituminous plants)
Rhodes Motors Ltd., England.
Remington Ice Co., U. S. A.
Sullivan Machinery Co., U. S. A.
Turner Bros Ltd., England.
Wason Manufacturing Co.
Wolverine Motor Works, U. S. A.
Water Tube Boiler Co., Ltd., England.

SHEWAN TOMES & CO.

ENGINEERING DEPARTMENT

HONGKONG, NEW YORK, LONDON, TIENTSIN, CANTON

SHANGHAI, N. 8 YUEN MING YUEN ROAD

JARDINE, MATHESON & CO., LTD.



INTERIOR OF JARDINE, MATHESON & CO.'S MACHINERY DEPARTMENT

MACHINERY DEPARTMENT

8A YUEN-MING-YUEN ROAD
SHANGHAI

ENGINES, BOILERS, PUMPS AND ELECTRICAL MACHINERY FOR ALL PURPOSES. ENGINEERING AND ELECTRICAL SUPPLIES IN STOCK

SOLE AGENTS FOR:

Messrs. Chas. Price & Co.
Messrs. J. B. White & Bros.
Messrs. Gwynnes, Limited.
Messrs. Marshall Sons & Co., Ltd.
Messrs. Merryweather & Sons, Ltd.
Messrs. A. Ransome & Co., Limited.
Messrs. Meredith Jones & Sons, Ltd.
Messrs. O. & W. Ormerod.
The Westinghouse Brake Co., Ltd.
Messrs. Bruce Peebles & Co., Ltd.
The British Northropp Loom Co.
Messrs. Joshua Hendy Iron Works.
Messrs. Henry Livesey, Limited.
The Barber Asphalt Roofing Co.
Messrs. Thos. & Wm. Smith, Limited
The Kitson Light Foreign Supply Co

WORTHINGTON

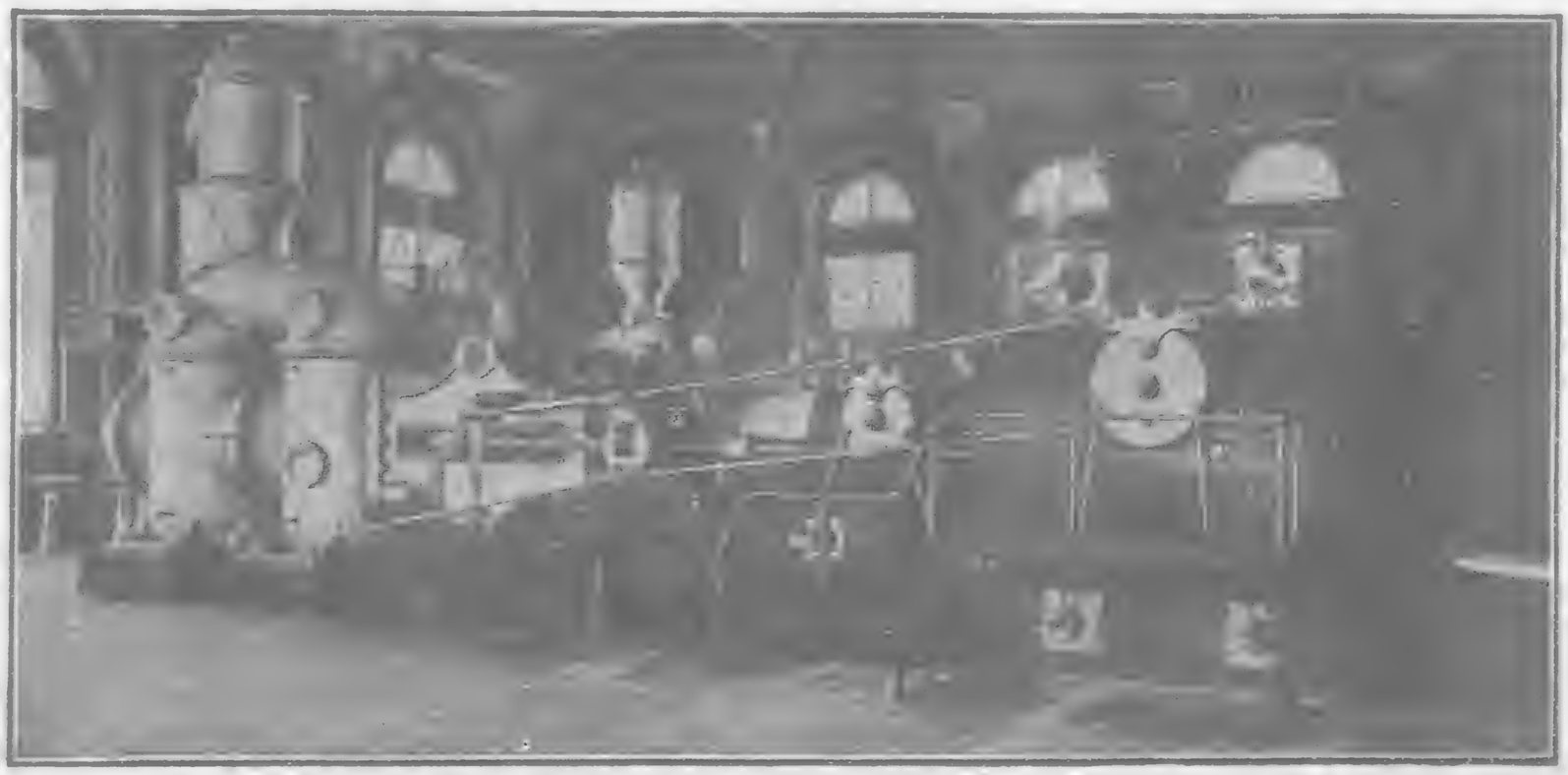
HIGH DUTY WATER WORKS ENGINES

FAMOUS ALL OVER THE WORLD FOR GREATEST ECONOMY, SIMPLICITY AND RELIABILITY

HENRY R. WORTHINGTON, INC.

115 BROADWAY, N. Y. CITY, U. S. A. ESTABLISHED 1840 SEND FOR OUR LITERATURE

Air Compressors.
Automatic Pumps and Receivers.
Boiler Feed Pumps.
Barometric condensers.
Beer Meters.
Brewery Pumps.
Boilers and Pumps.
Centrifugal Pumps.
Central Condensing systems.
Cooling Towers.
Check Valves
Distillery Pumps.
Elevator Pumps.
Evaporators.
Electric Pumps.
Feed Water Heaters.
Fire Pumps.
Foot Valves.
Irrigation Pumps.



High Duty Engines.
Hot Water Meters.
House Tank Pumps.
Jet Condensers.
Mine Pumps.
Marine Pumps.
Oil Meters.
Pressure Pumps
Sugar House Pumps.
Sewerage Pumps.
Strainers.
Surface Condensers.
Tannery Pumps.
Tank Pumps.
Turbine Pumps.
Underwriter Pumps.
Volute Pumps.
Wet Vacuum Pumps.
Every kind and size of pumps for operation by steam pressure, air pressure, electric motor, belt, rope drive or chain drive.

SHOPS NOW CONSTITUTE

most extensive and up-to-date Hydraulic plant in existence. Complete Contracts carried out by the best Engineering Representatives in every part of the World. All installations of High Duty Engines under the direct supervision of Engineers from our own Shops. Especial attention given to Water Works and Sewerage Plants for Municipalities in China. Every Reputable Dealer carries Worthington Pumps of ordinary sizes in stock. Every reputable Engineering concern is in a position to procure for you full information regarding special requirements.

TRUSCOTT
MARINE
MOTORS

Two cyclesingle cylinder 2, 3, 5, 7, and 9 H. P.

Four cycle 2, 4, and 6 cylinder 6 to 108 H. P.



We want agents in the Philippines, China and Japan

Shows 14 H.P. heavy duty. 6in. bore, 7in. stroke. Speed 350 r. p. m. Wt. 1750 lbs.

Uses gasoline (Petrol) or kerosene (Paraffin) THE TRUSCOTT HEAVY DUTY MOTOR is designed expressly for use in working boats. It is simple, reliable and economical. Write for catalogues stating requirements of your service.

We also construct a varied line of open and cabined launches.

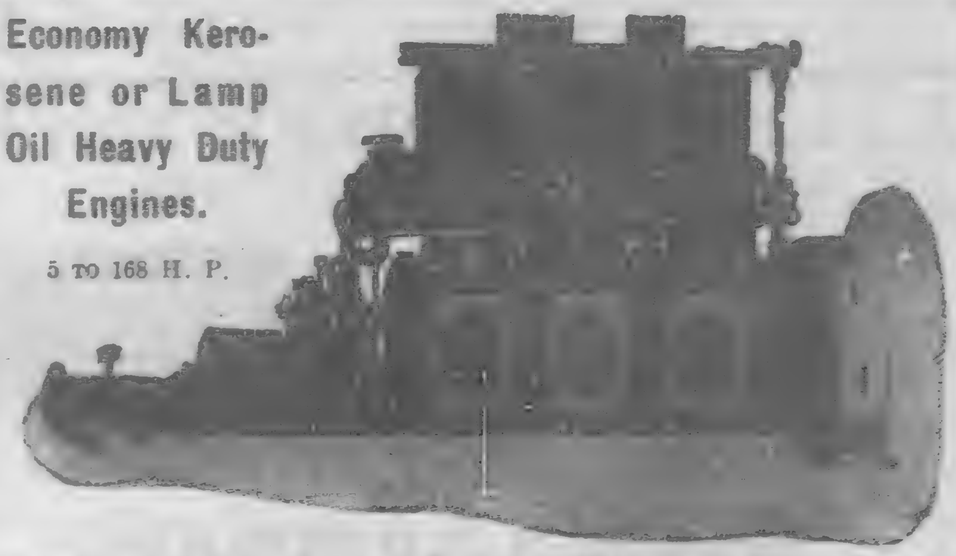
TRUSCOTT BOAT MFG. CO.

Box 18 St. Joseph, Mich., U. S. A.

MONARCH

Economy Kerosene or Lamp Oil Heavy Duty Engines.

5 TO 168 H. P.



GRAND RAPIDS GAS ENGINE & YACHT CO.

GRAND RAPIDS, MICHIGAN, U. S. A.

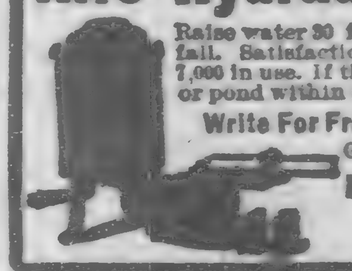
Code address: "Swinjkerp," Michigar.

PUMPS WATER

Day and Night Automatically

Low in first cost, easy to install, no expense to operate, any capacity desired for Country Homes, Farms, Dairies, Gardens, Irrigation, Town Plants, Railroad Tanks, etc.

Rife Hydraulic Rams



Raise water 30 feet for every foot of fall. Satisfaction Guaranteed. Over 7,000 in use. If there is a stream, spring or pond within a mile—

Write For Free Plans and Book.

Get our Free Trial Offer.

Rife Engine Co.
Trinity Bldg.
NEW YORK

ADDRESS: Rife Engine Co.
2117 Trinity Bldg.—New York

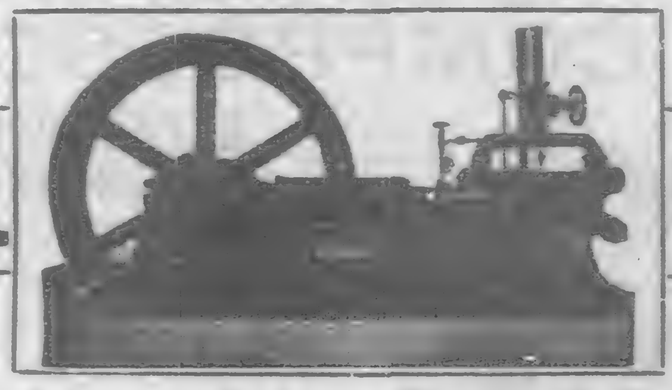
P. O. Box 194

C. S. NICHOLSON
GENERAL BROKER

9 P. MORAGA. MANILA, P. I.

VULCAN IRON WORKS

San Francisco, California, U. S. A.

VUL  CAN

Ice Machines of Any Desired Capacity

SEND FOR CATALOGUE

Cable Address: "VULCAN" San Francisco



Sanitary Steam Laundry Co.

Manila P. I.

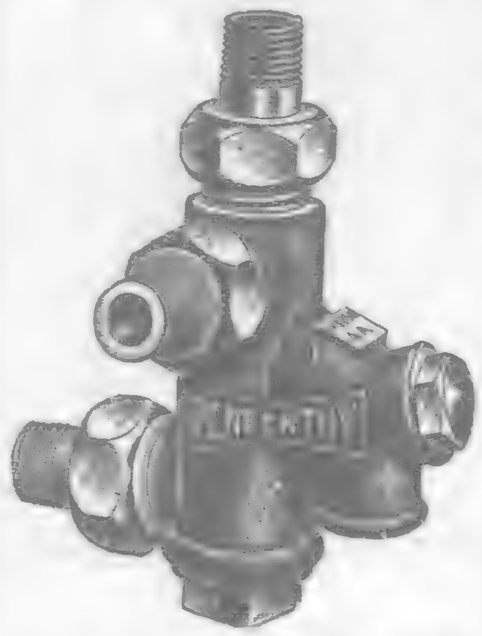
PHONE 529
P.O.BOX 752
86 CALLE ARLEGUI

Special Attention Given to Ship's Laundry

Deliveries made on Rush Orders within twenty-four hours

A PERFECT BOILER FEEDER

THE





Automatic Injector

This Injector takes the place of steam pumps (costing less) and taking up less room. It operates between pressures of 25 and 170 pounds. Lifts vertically 22 feet and handles hot water 125 deg. Fahr.

SALES 550,000 in the United States and Foreign Countries. Send for Catalog.

"XL-96" EJECTOR

EJECTOR

Can be used wherever water or other liquids are to be raised or lifted and transferred to different levels.

LIFTS 25 FEET
ELEVATES 100 FEET

Agents wanted in every Country

PENBERTHY INJECTOR COMPANY

LARGEST INJECTOR MANUFACTURERS IN THE WORLD

DETROIT, MICHIGAN - - - - - U. S. A.

356 Holden Ave.

AGENTS:

W. H. WILCOX & CO., London, E. C.

JOHN KING & CO., Calcutta.

MALCOMESS & CO., East London, S. A



Silver Leaf Lard
The Lard of Standard Quality

All users of Lard will appreciate the uniform quality of this Standard product. Silver Leaf Lard wins friends everywhere it becomes known.

Swift's Jewel Compound a high grade Substitute for Lard

Costs a little less than Silver Leaf Lard and is therefore used where large quantities are required. Its use assures wholesome, tasty dishes. Not affected by changes of climate.



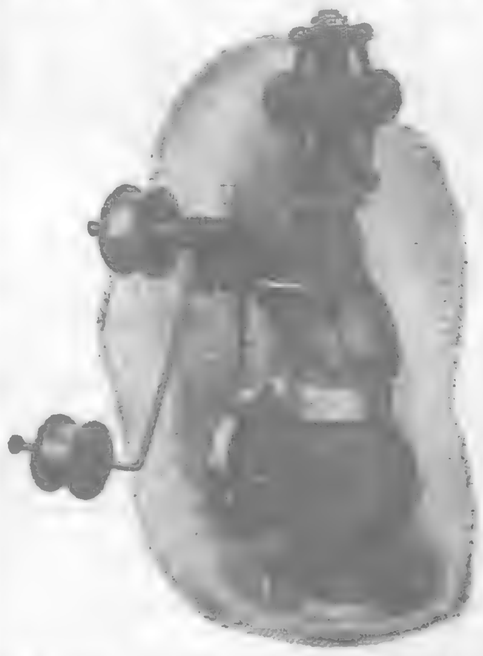
Both the above products packed in pails, tubs, barrels and tierces.

Swift & Company, U. S. A.

ORIENTAL HEADQUARTERS

SWIFT & COMPANY - - - - - No. 32 Nanking Road, Shanghai
WM. H. ANDERSON & CO., - - Foot Santa Cruz Bridge, Manila

AIR COMPRESSORS



STEAM PUMPS GOVERNORS

GARDNER GOODS

Governors, Steam Pumps, Air Compressors. This cut shows our new wide range governor—latest and best yet. With this governor you can get an extreme variation of 400% in engine speed. Seems incredible but a fact nevertheless which we guarantee. Durable and sensitive.

GARDNER DUPLEX STEAM PUMPS

The best of the American makes. Strong, durable and efficient. Larger valves and piston rods than used on any others. Always reliable and satisfies the users.

AGENTS WANTED
WRITE US

The Gardner Governor Company

QUINCY, ILLINOIS



SEE OUR ADVERTISEMENT OF GARDNER AIR COMPRESSORS IN NEXT MONTH'S ISSUE

The United States offers the greatest opportunity in the world to makers of industrial or denatured alcohol. Those who start this production now are bound to come to great rewards. The field is practically untouched and by starting now, you can have things very much your own way.

A general consideration of the NEW INDUSTRY, including a full description of the distilling apparatus used and the principle involved, also methods of chemical control and disposal of the products, first edition illustrated by seventy-four engravings, 156 pages. This book is cloth bound, it will be sent to any address post paid on receipt of $3.20. Every farm, ranch and merchant needs a 5 gallon Tax-Free denatured alcohol distillery apparatus. Agents price $98.50, a 100 gallon distilling apparatus cost $700.00. We are desirous to establish Far Eastern Agencies and have very good propositions to offer.

THE UTILIZATION OF WOOD WASTE BY DISTILLATION

Wood Waste Distilleries Co.

213-217 St. Clair Ave., N. W. CLEVELAND, OHIO, U. S. A.



Electric Supply Building, Canton, China.
Purnell & Paget, Architects and Engineers.
Built Kahn System of Reinforced Concrete.



East Hall, Canton Christian College, Canton, China.
Stoughton & Stoughton, Architects.
Built Kahn System of Reinforced Concrete.

KAHN SYSTEM
OF REINFORCED CONCRETE

The modern way of building—Fireproof and Enduring—Costs nothing for maintenance and lasts forever.

Over 2500 *Kahn System* structures in all parts of the world—including Factories, Warehouses, Stores, Office Buildings, Hotels, Public Buildings, Bridges, Viaducts, Tunnels, Reservoirs, etc.—Over 50 important buildings for the United States Government.

Experts agree that reinforced concrete is the best building material for resisting earthquakes.

Kahn System controls exclusively:

KAHN TRUSSED BARS—for reinforcing concrete beams, girders and floors.
RIB METAL—for reinforcing slabs, walls, sewers and conduits.
HY-RIB—A self-centering reinforcement for floors and roofs. A unit of lath and studs for walls and partitions.
RIB-LATH—The best steel lath for plastering and stucco work.
"TRUS-CON" CHEMICAL PRODUCTS—for finishing and water-proofing concrete.

Our Engineering Department will be glad to assist you with designs and estimates.

Separate catalogues showing structures of every kind, giving detailed methods of design and describing our various *Kahn System* products.

Trussed Concrete Steel Company
HEAD OFFICE DETROIT, MICH., U. S. A.

Eastern Agencies:

PHILIPPINE ISLANDS—California-Manila Lumber Commercial Co. Room 10, Lack & Davis Bldg., Manila, P. I.
CHINA—Arnhold, Karberg & Co., Hongkong, Canton, Newchwang, Tsingtau, Shanghai, Tientsin.
JAPAN—American Trading Co., Yokohama and Kobe.
HAWAIIAN ISLANDS—Honolulu Iron Works Co., Honolulu, T. H.

Baldwin Locomotive Works

Principal Offices and Works:
PHILADELPHIA, PA., U. S. A.
Cable Address: "Baldwin, Philadelphia"

Agents for China: ARNHOLD, KARBERG & CO.
Agents for Japan: FRAZAR & SALE, Yokohama



Builders of
LOCOMOTVES
of every description

Including
ELECTRIC LOCOMOTIVES
ELECTRIC TRUCKS

Standard Steel Works Co.

HARRISON BLDG., PHILA., PA., U. S. A.

SOLID FORGED AND
ROLLED STEEL WHEELS

STEEL TIRED WHEELS, FORGINGS

STEEL AND IRON AXLES, CASTINGS

ELLIPTIC AND HELICAL SPRINGS

THE FOX VISIBLE TYPE-WRITER



The STANDARD TYPEWRITER of the WORLD

THE ONLY VISIBLE TYPEWRITER having the strength, solidity, and durability of the best blind machines.
The **FOX** is the Typewriter that compelled every other typewriter manufacturer to get out a visible model--or go out of business.
The **FOX** has every improvement and attachment of the highest grade typewriter.
It combines "The good of the old with the best of the new."

AGENTS WANTED

We offer the Standard Typewriter, Exclusive Territory, very liberal conditions, and every possible assistance to our representatives.

Write for free illustrated catalog and circulars

FOX TYPEWRITER CO. 870-890 FRONT STREET GRAND RAPIDS, MICH., U.S.A.



PRIESTMAN BROTHERS, LIMITED

3 LAURENCE POUNTNEY HILL,
CANNON ST., LONDON, E. C.

DREDGERS,
EXCAVATORS
AND ELEVATORS

150 DIFFERENT TYPES AND SIZES OF GRABS TO SELECT FROM 1 TO 150 CUBIC FEET CAPACITY

PRICES AND FULL PARTICULARS ON APPLICATION TO







DICKESON, JONES & CO., AGENTS FOR CHINA

DICKESON, JONES & CO.

3e PEKING ROAD,
SHANGHAI

Merchants, Commission Agents and Manufacturers' Agents

DEPARTMENTS

Piece Goods

Metals

Lumber

Building Materials

Miscellaneous Indents

Cable Address:
"NOTLIAR"
SHANGHAI

Head Office
MANCHESTER

REPRESENTING OVER 30 FIRST CLASS BRITISH MANUFACTURERS OF ALL CLASSES OF GOODS

Offices and correspondents
LONDON
BIRMINGHAM
NEW YORK
SAN FRANCISCO
PORTLAND, ORE.
HAMBURG
VIENNA

Shanghai Electric and Asbestos Co., Ltd.

Removed to new premises on Nanking Road—between the Bund and Szechuen Road, Shanghai

Electrical Engineers, Government Contractors, and Agents.



SOLE AGENTS FOR

Bell's Asbestos Eastern Agency, Ltd.

Packings and Special Lubricants

Suter Hartmann and Rahtjen's "Red Hand"

Anti-Corrosive and Anti-Fouling Paints

"Express" Marine Oils

Easton Lift Co., Electric Lifts

Bowers Rubber Works, San Francisco, Cal.

Rubber Goods, Packings, Fire Hose, Mats, etc.

Cable Address: "OHM" SHANGHAI
Codes: A-1, A. B. C. (5th Edition), Engineering and Western Union

The oldest established firm in our line in China. We carry the largest and most varied stocks in the Far East. Call and see our showroom

CLASSIFIED HEADINGS

ELECTRICAL ENGINEERS, ELECTRICAL MACHINERY IMPORTERS, SUNDRY MACHINERY IMPORTERS, PAINT MERCHANTS, OIL MERCHANTS, RUBBER MERCHANTS, FIRE HOSE IMPORTERS, ASBESTOS IMPORTERS, PACKINGS IMPORTERS, ELEVATOR IMPORTERS, ELEVATOR INSTALLATIONS, SHIPS' COMPRADORES, MATTING IMPORTERS. - - - - - - - - - - - - - -

SCHUCHARDT & SCHUTTE

BERLIN LONDON NEW YORK



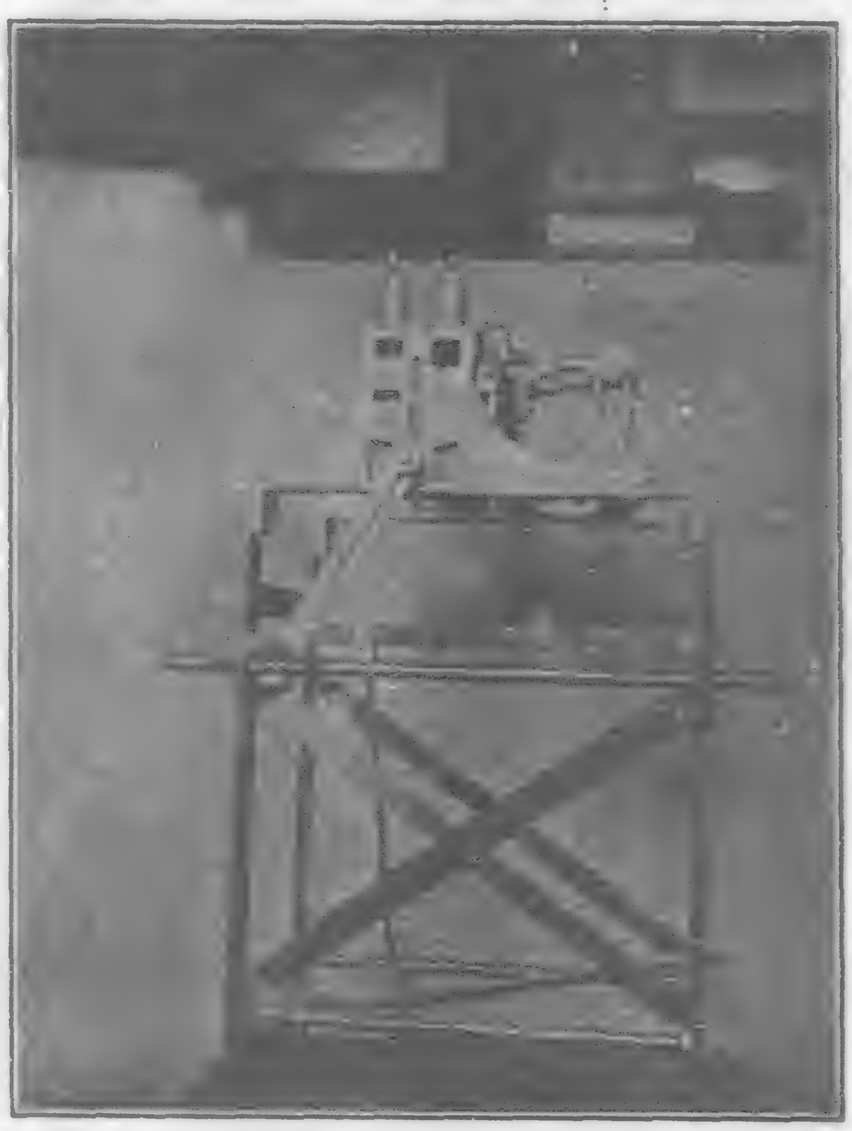
ABSOLUTELY RIGID
NO BREAKAGE NO WARPING.

FULL ASSORTMENT OF SIZES CARRIED IN STOCK BY:

TAKATA & CO., TOKYO
SHANGHAI MACHINE CO., SHANGHAI AND HANKOW.
GERMANN & CO., MANILA.
HOWARTH ERSKINE & CO., LTD., BANGKOK.
MAINTZ & CO., BATAVIA AND SOERABAYA.

THE "DAILEY"

Patent Hand-Power Hemp Cleaning Machine



WEIGHT 172 LBS.

Capacity 150 lbs. of clean, white Brilliant Fiber per day.

FOR PRICES AND PARTICULARS *Address*

C. E. DAILEY

82-92 BEAVER ST. NEW YORK

ROSE, DOWNS & THOMPSON, LTD.

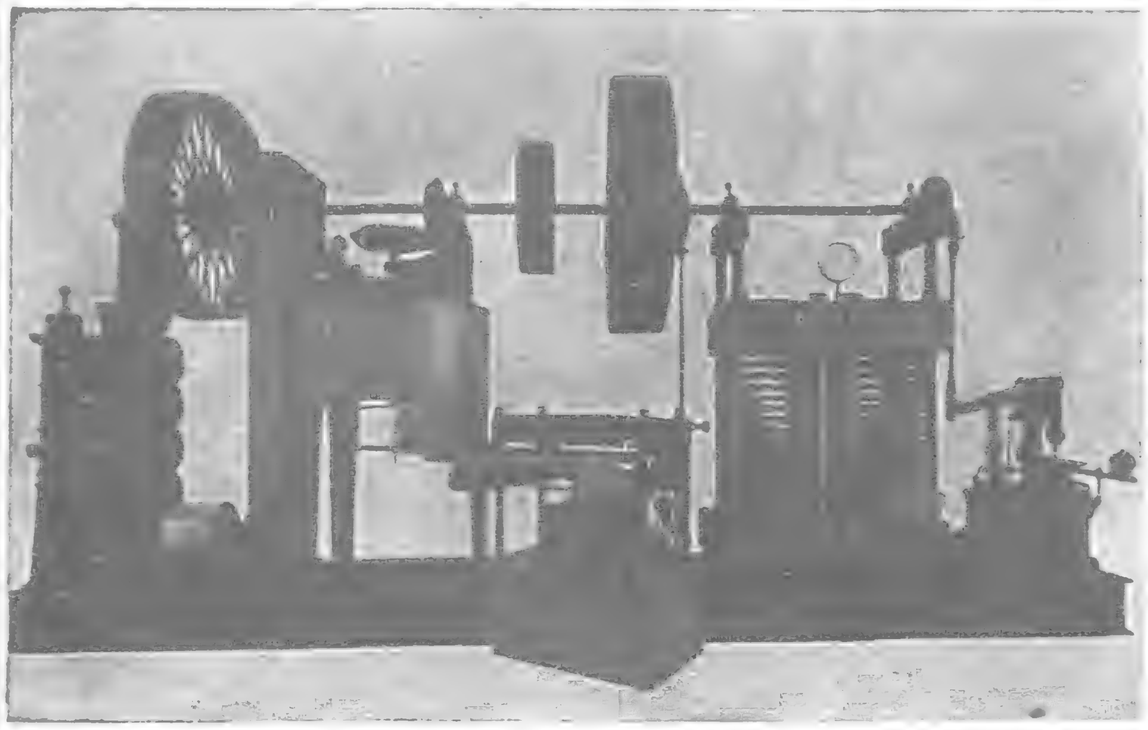
ESTABLISHED 1777

EASTERN OFFICE: 13 NANKING ROAD, SHANGHAI

CABLE ADDRESS: "ROSEDOWNS," SHANGHAI

HEAD OFFICE AND WORKS, HULL, ENGLAND

CONTRACTORS TO HOME, COLONIAL AND FOREIGN GOVERNMENTS



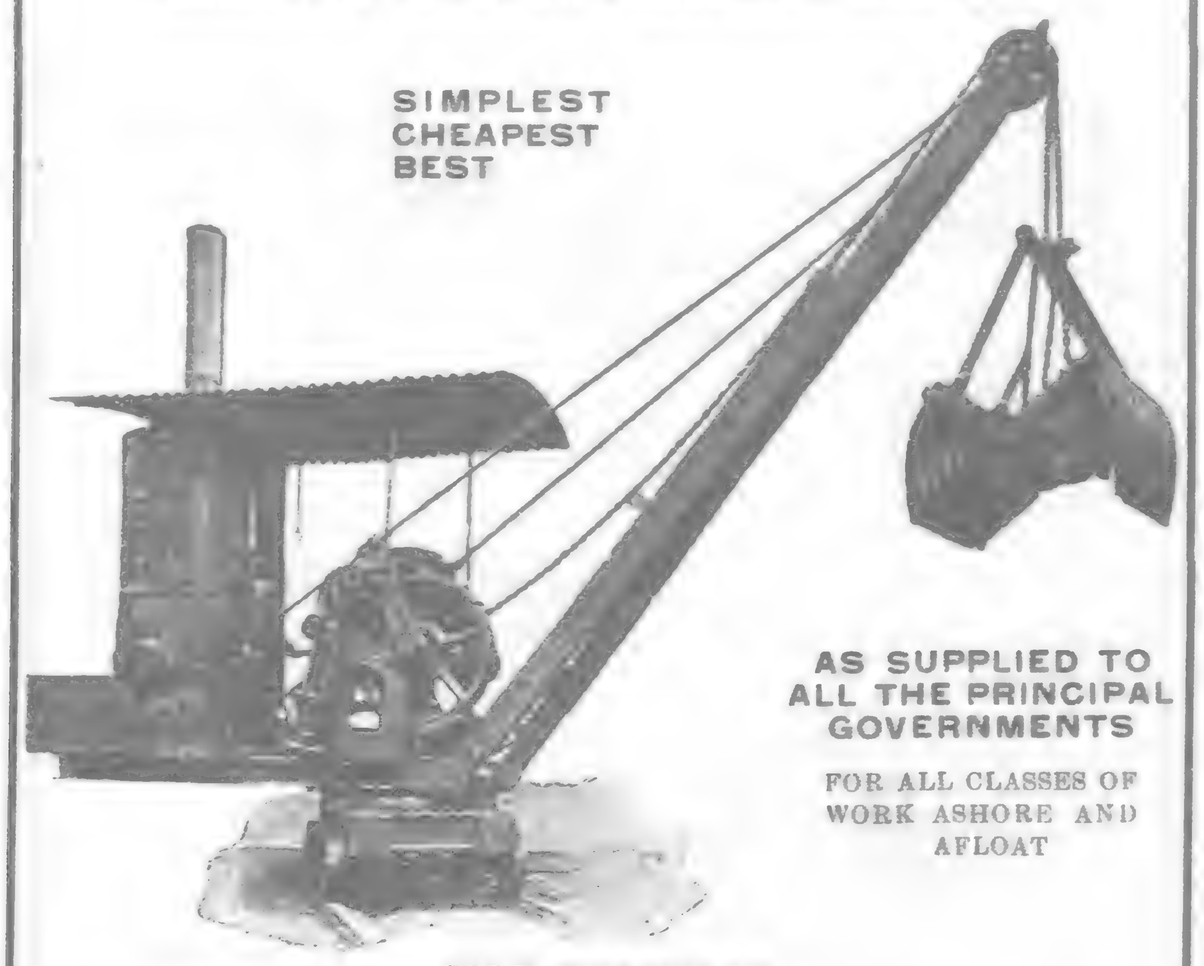
OLDEST AND LARGEST MANUFACTURERS IN THE WORLD OF

OIL MILL MACHINERY

SUITABLE FOR THE TREATMENT OF EVERY VARIETY OF OIL-BEARING SEED AND NUT; ON THE MOST EFFICIENT AND MODERN PROCESSES

OVER 4,000,000 TONS OF SEEDS AND NUTS CRUSHED ANNUALLY IN MACHINERY MANUFACTURED BY US

SIMPLEST
CHEAPEST
BEST



AS SUPPLIED TO ALL THE PRINCIPAL GOVERNMENTS

FOR ALL CLASSES OF WORK ASHORE AND AFLOAT

SOLE MAKERS OF

The "Kingston" Grab Dredger and Excavator

POSSESSES IMPORTANT ADVANTAGES OVER ALL OTHER SYSTEMS

FOR DEEPENING RIVERS, DOCKS, CANALS, AND HARBOURS, EXCAVATING CLAY AND SAND, LIFTING ROCKS, DISCHARGING GRAIN, ETC., ETC.

CATALOGUES, ESTIMATES AND FULL INFORMATION ON APPLICATION

SHIP'S SPRING BEDS

FRAMES are built of the best Philippine Hardwood : : : : : : : : : :

SPRINGS are manufactured from the finest grade of American tinned steel wire and are guaranteed immune from the effect of Salt Sea Air : : : :

We are prepared to furnish estimates on large orders. Discounts to the trade.

Our plant runs day and night : : :

THE BARGAIN STORE MANUFACTURING CO.

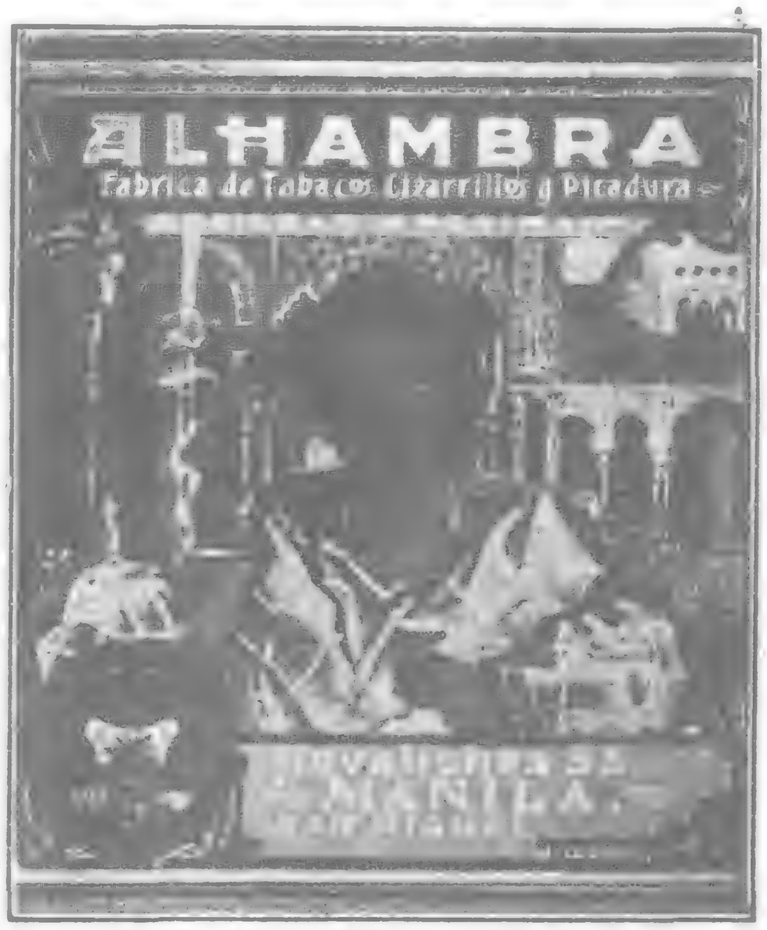
56 Echague, P. I.

Cable Address: GITT Telephone 469 P. O. Box 547

KUENZLE & STREIFF

GENERAL MANAGERS

MANILA -:- CEBU -:- ILOILO -:- ZAMBOANGA



AMERICAN FAVORITES

Excelentes
Especiales
Divinos
Perfectos
Imperiales
Marines
Republicanos
Panetelas
Reina
Victorias

SPECIAL ATTENTION GIVEN FOREIGN AND AMERICAN TRADE

NO. 43 CALLE DAVID MANILA, P. I.

Frank L. Strong

Cable Address: STRONG

Telephone No. 360 P. O. Box 772

Stuart S. Harvey

Cable Address: HARVISTON

Telephone No. 360 P. O. Box 277

Offices: 34-40 Calle Echague, Manila, P. I.

EXCLUSIVE AGENTS

FOR LEADING

AMERICAN AND EUROPEAN MANUFACTURERS

LEADING SPECIALTIES

Electrical Machinery and Supplies

Saw Mill and Planing Mill Machinery

Locomotives and Railway Equipments

Air Compressors and Pneumatic Tools

Agricultural and Road Making Machinery

Mechanics' Tools, Builders' Hardware, etc., etc.

Steam Engines and Boilers

Kerosene and Gasoline Engines

Ice and Refrigerating Machines

Sugar, Rice and Fibre Machinery

Mining and Hydraulic Machinery

Complete Machine Shop Equipment

SPECIFICATIONS DRAWN ESTIMATES GIVEN

CABLE ADDRESS: "PICKETT"

CODES: WESTERN UNION, UNIVERSAL

TELEPHONE: 1041

HARNESS

We have the only Modern Harness Manufacturing Plant in the Far East, and have studied Oriental needs for ten years.

We make harness to fit horses of any size suited either for Driving or Draft purposes and only the best American leather is used.

We have a complete stock of the latest patterns in Smart Harness and are equipped to fill the largest order to the satisfaction of the trade.

We have made harness for the Philippine Government for the last decade.

We carry in stock the best makes of English and American riding saddles.

We are sole agents for "Eglentine" Metal Bits, Stirrups, Spurs, etc.

Far Eastern Dealers Should Write for Our Catalogue and Wholesale Prices

PICKETT HARNESS CO.

MANILA, P. I.

INTERPORT CRICKET 1866 TO 1908

SHANGHAI, HONGKONG AND SINGAPORE

A complete record of all the Interport Cricket matches played between Hongkong, Shanghai and Singapore, will be published in book form, well bound and printed, on or about October 1, 1909.

Short description of each match; full scores batting and bowling averages.

PRICE: $1.50 CASH

As only a limited number are being printed early application for copies is necessary

ORDER NOW! **J. W. BAINS** *"Shanghai Times" Office.*

Shanghai

DEUTSCH-ASIATISCHE BANK SHANGHAI

BERLIN, CALCUTTA, HANKOW, HAMBURG, HONGKONG, PEKING, TIENTSIN, TSINANFU, TSINTAU, YOKOHAMA, KOBE, SINGAPORE

PAID-UP CAPITAL..... SH. TLS. 7,500,000

Founded in 1889 by the following Banks and Bankers:

Koenigliche Seehandlung (Preussische Staatsbank), Berlin
Direction der Disconto-Gesellschaft, Berlin
Deutsche Bank, Berlin
S. Bleichroder, Berlin
Berliner Handels-Gesellschaft, Berlin
Bank fur Handel & Industrie, Berlin
Robert Warschauer & Co., Berlin
Mendelssohn & Co., Berlin
M. A. von Rothschild & Sohne, Frankfurt o|M.
Jacob S. H. Stern, Frankfort o|M.
Norddeutsche Bank in Hamburg
Sal. Oppenheim jun. & Co., Cologne
Bayerische Hypotheken & Wescheel Bank, Munich

London Bankers:

Messrs. N. M. Rothschild & Son.
Union of London & Smith's Bank, Ld.
Deutsche Bank (Berlin). London Agcy.
Direction der Disconto-Gesellschaft.

New York Agents:

Hallgarten & Co., No. 5 Nassau St.

Every Description of Banking and Exchange Business Transacted.

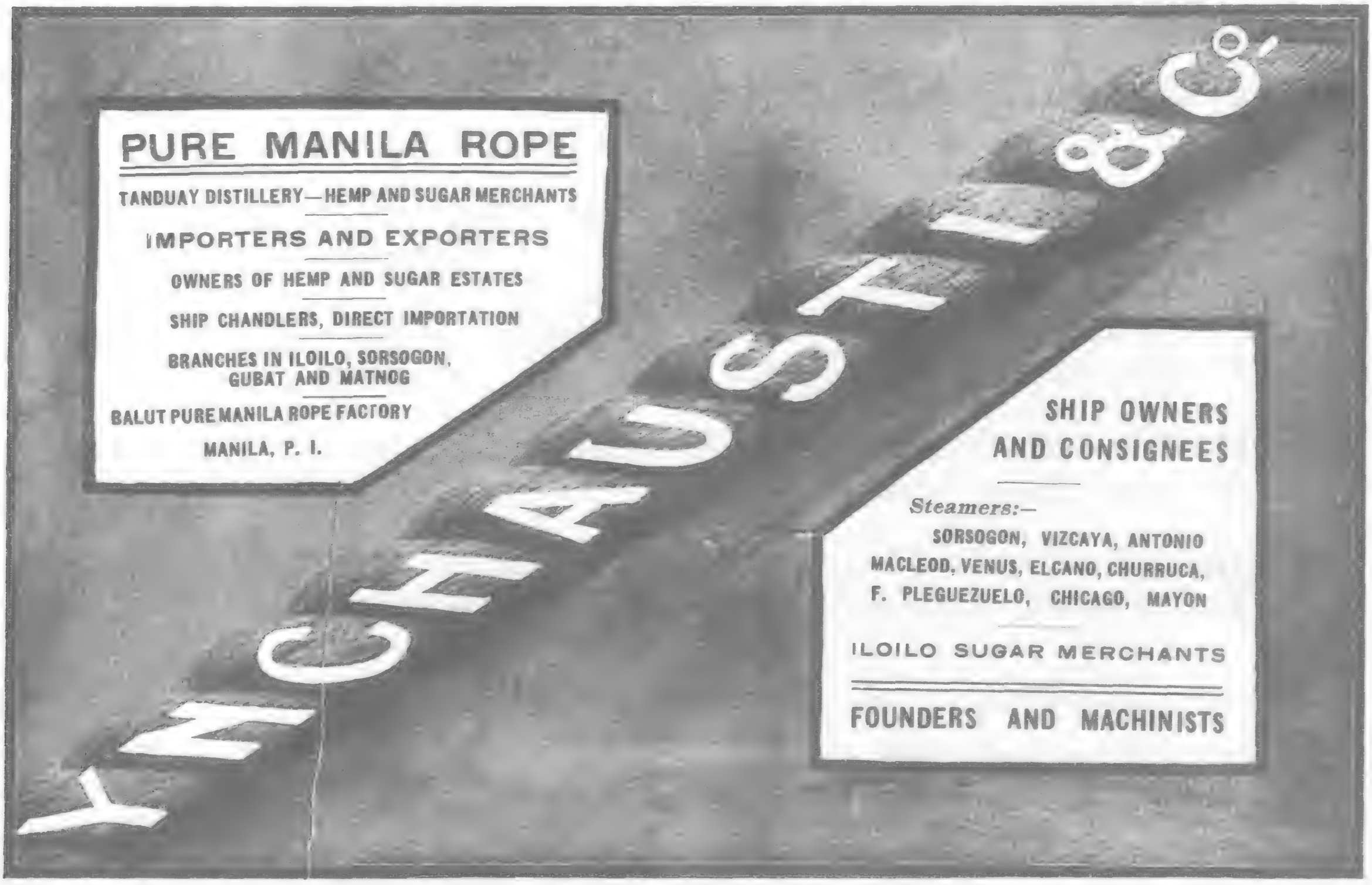
Interest allowed on Current Accounts at 2 per cent per annum on the daily balance. Current accounts kept in taels and dollars.

Interest allowed on Fixed Deposits according to arrangement.

Local Bills discounted.

Every description of Banking and Exchange business transacted.

H. FIGGE, *Manager*,
Shanghai.



Cable Address: "MERCHMAN"
Codes: A. B. C. 5th Ed., Western Union

Telephone 459
P. O. Box 761

Electrical Supply Company, Inc.

16-28 Plaza Moraga, Manila, P. I.

Manufacturers and Importers and Dealers in

Electrical Materials and Supplies

Complete Supply of

Electrical Goods

Carried in Stock

Connections Throughout the Philippines

Prepared to Undertake Additional Manufacturers' Agencies: : : : : : :

The Development of the

Remington

is the History of the Writing Machine



NEW MODELS

10 AND 11

NOW READY

Model 10, with Column Selector
Model 11, with Built-in Tabulator

Remington Typewriter Company
(INCORPORATED)

New York and Everywhere

"LA PARISIEN" CARRIAGE MANUFACTORY

Telephone 520
P. O. Box 890

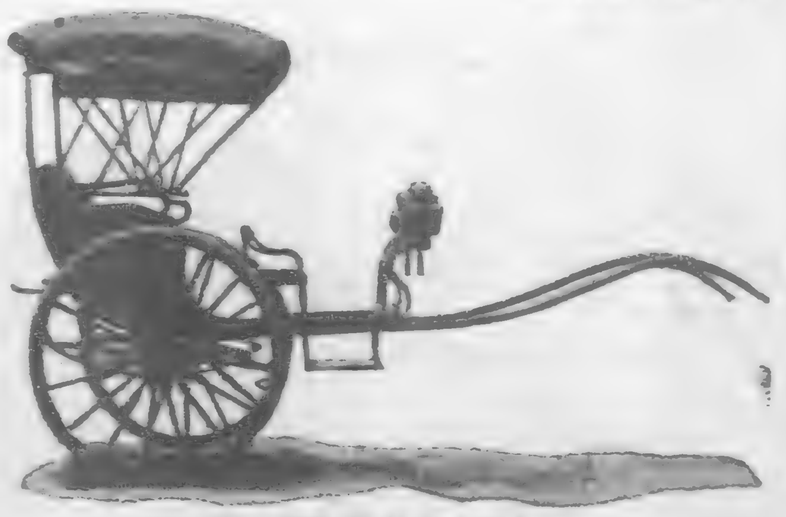
340 CALLE PALACIO

Manila, P. I.

Manufacturers of all Classes of Vehicles

We Use The Famous
"GUIJO DE SAN MATEO"
Only the Very Best Materials,
AMERICAN AND FRENCH

Goodyear Rubber Tires



BLANCO TRILL Y CIA.

PHILIPPINE TIMBER

WE SUPPLY HARDWOOD SLEEPERS, TIES, PILING AND ALL KINDS OF CONSTRUCTION TIMBERS IN LARGE QUANTITIES.

CORRESPONDENCE SOLICITED

THE PHILIPPINE LUMBER CO.

Producers and Dealers in Philippine Lumber

MANILA, P. I.

HOTELS

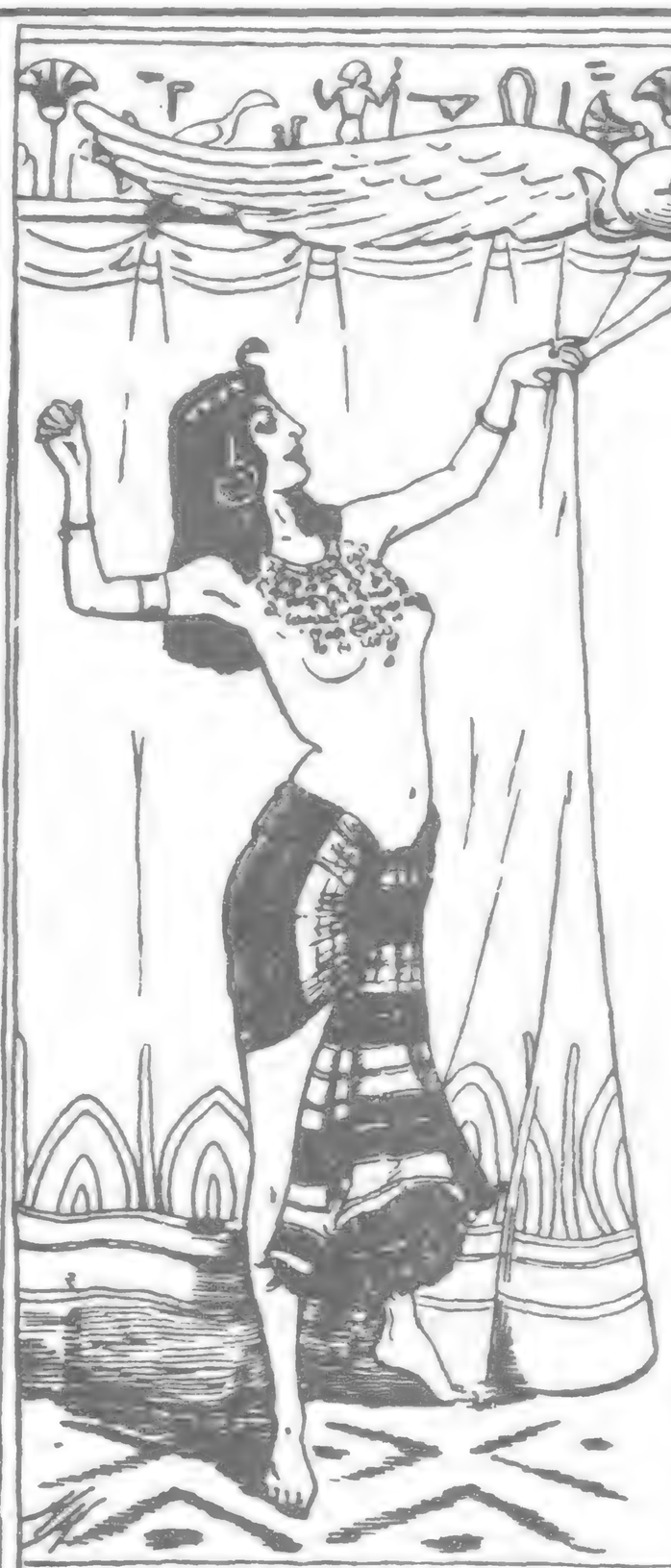
WHERE TO LIVE AT MANDALAY

UPPER BURMA

SALWEEN HOUSE
AND
TENASSERIM HOUSE

Entire satisfaction guaranteed, as the numerous testimonials from both residents and tourists testify.

TELEGRAPHIC ADDRESS: "SALWEEN"



THE

World's Best Products

TOBACCOS

Garrick Smoking Mixture
Glasgow Smoking Mixture
Player's Navy Cut
Player's Navy Mixture
Old English Curve Cut
Capstan Mixture
Bull Durham
Black & Tan

VIRGINIAN CIGARETTES

Three Castles
Capstan Navy Cut
Sweet Caporal
Crosscut
Garrick, Gold Tipped
Garrick, Plain
Golden Honey Dew

EGYPTIAN CIGARETTES

Bouton Rouge
Felucca
Nilometer
Rapido
Lotus
Natural

OBTAINABLE OF ALL DEALERS AND AT DEPOTS OF

British-American Tobacco Company, Ltd.

SHANGHAI -:- HONGKONG -:- MANILA -:- SINGAPORE -:- BANGKOK -:- COLOMBO -:- CHEMULPO



"GERMINAL"

Cigar and Cigarette Factory

4 Calle Marques de Comillas, Manila, P. I.

FOR A MILD CIGARETTE SMOKE TRY THE "FLOREAL"

"GERMINAL" MANILA

TRADE MARK

GERMINAL CIGARS THE UNIVERSAL FAVORITE

This means the approval of discriminating critics; and shows an appreciation of the delicious richness of the choicest tobacco leaf, the exquisite aroma of an original blend, the finished touch throughout of an expert's hand - - - - - - - - - -

"FLOREAL" Cigarettes

"floreal"

TRADE MARK

ASTOR HOUSE HOTEL CO., LTD.

Cable Address:
"ASTOR" SHANGHAI
Chinese Name: "LEE-ZO"

W. BRAUEN
Manager

Codes Used:
A. B. C. 5th EDITION
WESTERN UNION



Telephone:

GENERAL OFFICE	200	MANAGER'S	908
SECRETARY'S OFFICE	590	GUESTS'	904

THE WALDORF-ASTORIA OF THE ORIENT

Largest, Best and Most Modern Hotel in the Far East. Main Dining Room Seats 500 Guests, and is Electrically Cooled. Two hundred Bedrooms with Hot and Cold Baths Attached to Each Room.
Cuisine Unexcelled; Service and Attention Perfect. Summer Garden; American Bar and Billiard Rooms; Lounge, Smoking and Reading Rooms; Barber and Photographer on the Premises.

Rates from $6; Special Monthly Terms

SHANGHAI, CHINA

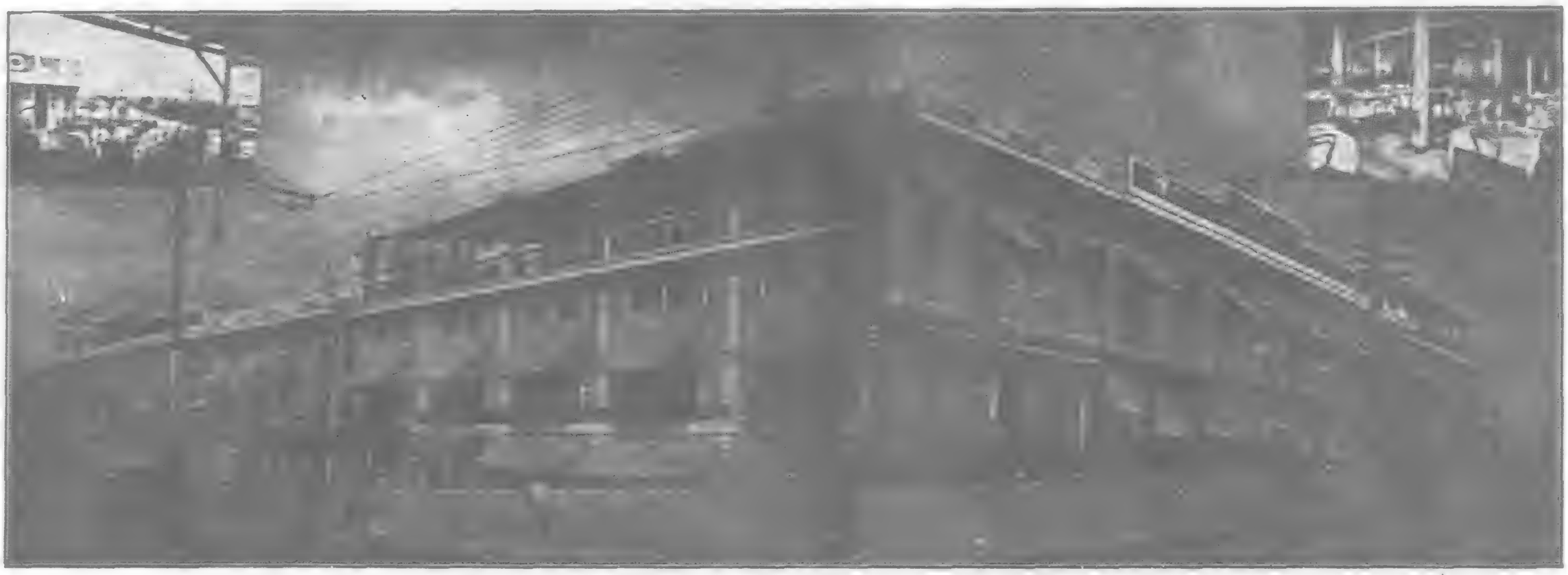
NEW METROPOLE HOTEL

CABLE ADDRESS
"METROPOLE" MANILA

MANILA, P. I.

AMERICAN AND
EUROPEAN PLAN.

THIS MAGNIFICENT HOTEL HAS JUST BEEN COMPLETED AND IS FURNISHED IN THE MOST UP-TO-DATE MANNER. COMMODIOUS, WELL-AIRED, LIGHTED, AND SPACIOUS BEDROOMS



NEW METROPOLE HOTEL SHOWING ROOF GARDEN

¶ Private Dining Rooms for Banquets, Wedding Parties, etc.
¶ Roof Garden from which a Panorama of the Pasig river and Manila may be enjoyed.
¶ Centrally Located. Modern and Up-to-date—Cool and Well Ventilated—Electric Fans in all rooms—Excellent Service.



DINING ROOM

HOTEL DES COLONIES

THE LEADING AND
ONLY FRENCH
HOTEL IN SHANGHAI

Single Rooms and Suites de Luxe with board at prices ranging from $5.00 mex. to $14 per day.



MAIN HALL

The Imperial Hotels, Limited

(Imperial Hotel and Villa & Metropole Hotel) : :

The First Class Hotels of the Capital : : : :

TOKYO, JAPAN



Patronized by the Imperial Household and Foreign Embassies : : : : : :

CARL FLAG,
General Manager

SANTA CRUZ BRIDGE

WM. H. ANDERSON & CO.

MANILA, P. I.

IMPORTERS AND EXPORTERS: COMMISSION AGENTS



AGENTS IN THE PHILIPPINES FOR

GREEN ISLAND CEMENT COMPANY

HONGKONG ROPE MFG. CO.

FARM AND ROAD WAGONS

LIBBY, McNEILL & LIBBY

SWIFT & COMPANY

BRUNSWICK-BALKE COLLENDER CO.

DIEBOLD SAFES

AERMOTOR COMPANY

LUBRICATING OILS

DEERE IMPLEMENT COMPANY

GLAZED SEWER PIPE

FIRE BRICK, FIRE CLAY

RUBEROID ROOFING

CIMENT PORTLAND

EXPOSITION INTERNATIONALE HANOI 1902-1903 GRAND PRIX

SOCIÉTÉ DES CIMENTS PORTLAND ARTIFICIELS DE L'INDO-CHINE

HAÏPHONG

Use Dragon Brand for Highclass Solid and Enduring Construction

GENERAL AGENTS FOR CHINA

RACINE ACKERMANN & CO.

NO. 4 YANG-KING-PANG, SHANGHAI

THE CHEE HSIN CEMENT CO., LTD.

TANGSHAN PORTLAND CEMENT

In barrels of 375 lbs. (170 kg.) net

Tangshan Portland Cement manufactured of the best raw material at our new extensive works which have recently been erected and equipped with the newest and most up-to-date machinery, flint-mills, rotary-ovens, etc., etc., is of superior quality and

EQUAL TO THE BEST EUROPEAN BRANDS

Awarded Silver Medal at St. Louis Exposition 1904

Shanghai Agent:
E. WOYAN
47 Quai de France



In bags of 187½ lbs. (85½ kg.) net

Tangshan Portland Cement is universally used throughout North China by Railways, Engineering Works, Mining Companies, Municipalities, etc. Orders of large extent accepted for delivery at short notice.

CEMENT MOSAIC TILES
CEMENT ROOFING TILES
CEMENT PAVING TILES
CEMENT DRAIN PIPES
FIREBRICKS
FIRECLAY TILES
GROUND FIRECLAY

For particulars and prices apply to

THE CHEE HSIN CEMENT CO., LTD.

Head Offices:
TIENTSIN

Hankow Agent:
CHING CHONG



THE PREMIER COMPANY OF THE EAST

Agencies from London to Manchuria

EXTRACT FROM 11TH ANNUAL REPORT
SHEWING A RECORD PROGRESS : : :

Insurance in Force	$34,054,152.00
Assets	$ 7,114,490.00
Income	$ 3,073,834.00
Security to Policyholders	$ 6,885,052.00

Low Rates!
Unconditional Policy!
Largest Bonuses!

Registered under Hongkong Ordinances and under the Life Assurance Companies' Acts, England; and offers its Home-Returning policyholders the Double Advantage of being able to pay their Premiums to the Company's London and American Agents, Messrs. Thomas Cook and Sons, at reduced rates.

East Asiatic Dredging Company

SHANGHAI OFFICES:
5 Yuen-Ming-Yuen Road

Contractors for Dredging and Constructing Works in China, Hongkong, The Philippine Islands and Japan



PRICES AND CONDITIONS WILL BE GIVEN ON APPLICATION

TEN BOKKEL HUININK, KORTHALS ALTES, VAN THIEL DE VRIES & CO.

ATLANTIC, GULF & PACIFIC COMPANY

(INCORPORATED)

ENGINEERS AND CONTRACTORS

Offices: NEW YORK, SAN FRANCISCO, SEATTLE, MANILA



STEEL CYLINDERS FABRICATED AT THE COMPANY'S STRUCTURAL STEEL SHOPS AT MANILA

MANUFACTURERS OF

STRUCTURAL STEEL

Manufacturers and Builders of
STEEL BRIDGES, TANKS, PIPE LINES, WHARVES

Manufacturers of
RIVETS, BOLTS, NUTS, WASHERS, ETC., ETC.

J. G. WHITE & CO.

(INCORPORATED)

NEW YORK

Cable Address: "WHITEMOTH"

CODES:
Western Union
and A B C, 5th
Edition

J. G. WHITE & CO.

(LIMITED)

LONDON

Cable Address: "WHITTERICK"

Construction Office for Work in the Far East

Manila, Philippine Islands

ENGINEERS — Cable Address: "Whitemanla" — CONTRACTORS

GENERAL CONSTRUCTION WORK

ELECTRIC TRAMWAYS

POWER PLANTS

ELECTRIC LIGHTING AND POWER

WATER POWER DEVELOPMENT

STEAM RAILROADS

RIVER AND HARBOUR IMPROVEMENT



SAN MIGUEL REINFORCED CONCRETE BRIDGE, MANILA, CONSTRUCTED BY J. G. WHITE & CO. (INC.)

DREDGING

DOCKS

WHARVES

PAVING

WATER SUPPLY

SEWERS

COAL HANDLING PLANTS

REPORTS MADE AND ESTIMATES FURNISHED

CONTRACTS IN THE PHILIPPINE ISLANDS:

COMPLETE RAILROAD AND ELECTRIC LIGHTING SYSTEM FOR THE MANILA ELECTRIC RAILROAD AND LIGHT COMPANY, MANILA—COMPLETED

WOOD BLOCK PAVING, ROSARIO AND ESCOLTA, MANILA—COMPLETED

CONCRETE STEEL BRIDGE, MANILA—COMPLETED

ILOILO HARBOUR IMPROVEMENT—COMPLETED

CEBU HARBOUR IMPROVEMENT—UNDER CONSTRUCTION

TIMBER PIER AND WHARF, QUARTERMASTER'S DEPARTMENT, MANILA—COMPLETED

COAL-HANDLING PLANT, OLONGAPO NAVAL STATION—UNDER CONSTRUCTION

STEAM RAILROADS, ISLANDS OF CEBU, NEGROS AND PANAY—UNDER CONSTRUCTION

FORT WILLIAM McKINLEY—PASIG EXTENSION, MANILA E. R. R. & LIGHT CO.—COMPLETED TO PASIG

THE SEMI-TROPICAL ROUTE

PACIFIC MAIL STEAMSHIP COMPANY

OCCIDENTAL AND ORIENTAL S. S. CO., TOYO KISEN KAISHA

DIRECT SERVICE BETWEEN SAN FRANCISCO AND THE FAR EAST

SAN FRANCISCO
HONOLULU
YOKOHAMA
KOBE
NAGASAKI
SHANGHAI
HONGKONG
MANILA



MANCHURIA
MONGOLIA
KOREA
SIBERIA
CHINA
ASIA
TENYO MARU
CHIYO MARU
NIPPON MARU

A. M. GARLAND
FREIGHT TRAFFIC MANAGER
A. G. D. KERRELL,
GEN. PASSENGER AGENT

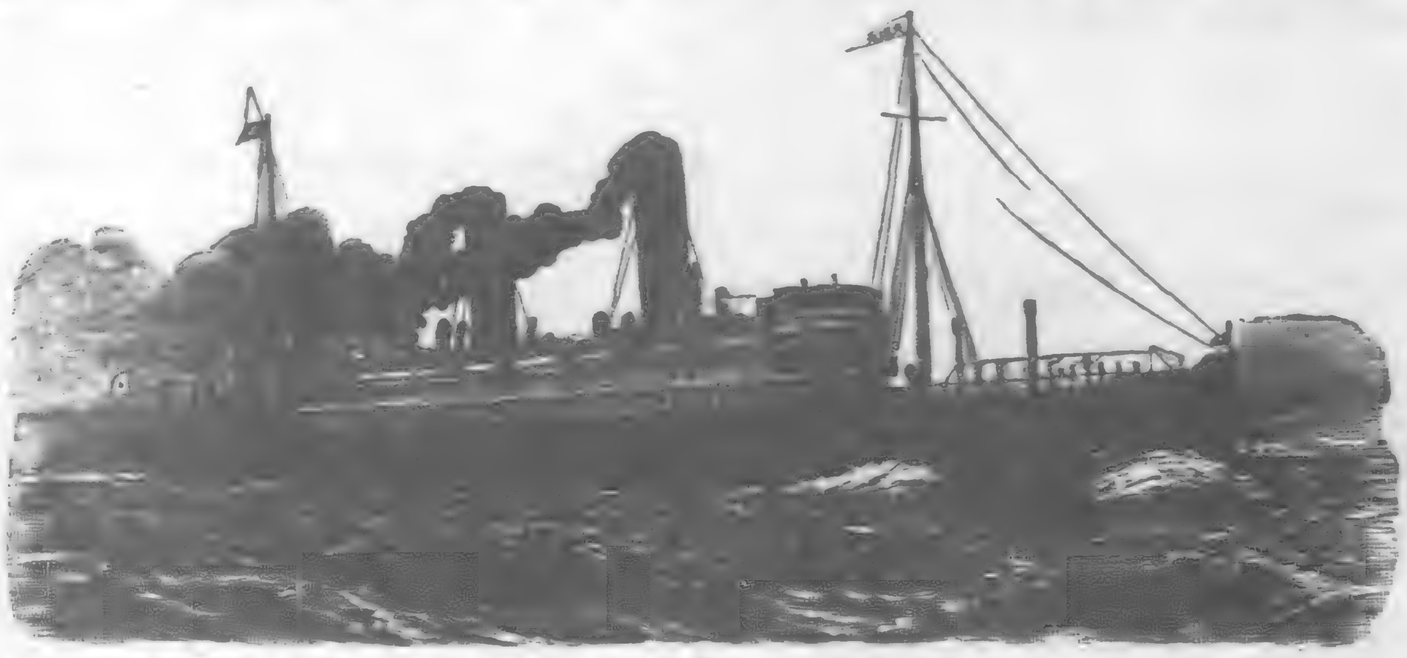
GENERAL OFFICE,
"FLOOD BUILDING"
SAN FRANCISCO, CAL.

SIBERIA—Transpacific Record 10 days 10 hrs. (Yokohama-San Francisco)

FEATURES OF THE LINE:—Southern route; passengers enjoy outdoors throughout; deck bathing. The call at Honolulu, Oahu, the most fertile and beautiful Island of the Pacific. The only line to San Francisco, the greatest port of the Pacific.

Castle Bros.-Wolf & Sons, Agents, Manila, P. I.

TOYO ORIENTAL KISEN STEAMSHIP KAISHA COMPANY



GENERAL OFFICE:
KAIGANDORI,
YOKOHAMA

MANILA AGENCY:
Castle Bros.-Wolf & Sons

S. S. "TEN-YO MARU" & S. S. "CHI-YO MARU," NEW MAGNIFICENT TRANSPACIFIC LINERS, EQUIPPED WITH THE LATEST AND MOST IMPROVED TURBINE ENGINES AND PROVIDING EXCEPTIONAL ACCOMMODATIONS FOR PASSENGERS

THE MODERN OCCIDENT, THE ANCIENT ORIENT, THE ISLES OF THE PACIFIC, THE HOLY LAND AND ITS MEMORIES, EGYPT AND ITS MYSTERIES, AS WELL AS CONTINENTAL EUROPE AND SOUTH AMERICA, ARE ALL EMBRACED IN THE WORLD CIRCLE ITINERARY OF THE ORIENTAL STEAMSHIP COMPANY : : :

TELEGRAPHIC ADDRESS:
"TABACALERA"

HEAD OFFICE
BARCELONA

COMPANIA GENERAL DE TABACOS
DE FILIPINAS

Established in 1882. **Capital: £ 3,000,000**

Shipping Department, 63 Escolta.

—

Manila

General Office,

Calzada Marques de Comillas.

—

Retail Store,

63 Escolta.



BRANCHES AND AGENCIES

in the principal cities of the world and towns of the Philippines

—

Proprietors of the celebrated factories

"La Flor de la Isabela"

High grade cigars manufactured with the most selected leaf grown in the estates of the Company.

SPECIAL BRANDS:

Pig's tails, Vegueros Especiales, Regalia A. Lopez, Regalia G. Pereire, Favoritos A. Lopez, Favoritos A. Correa, Perfectos Especiales, Exquisitos, Reina Victoria, etc.

Excellent common brands.

"La Clementina"

Alcohol Manufactures—Gin—Distilled Spirits

GENERAL IMPORTERS AND EXPORTERS

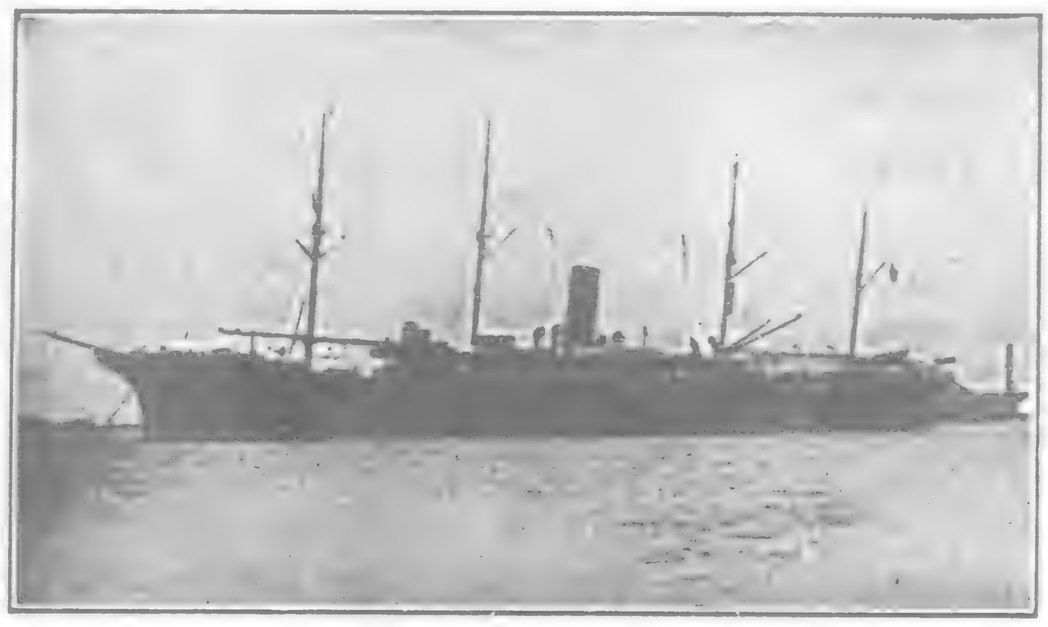
INTERISLAND STEAMERS

Under Government Contract and Inspection.
Electric Light. First Class Accommodation

FAR EASTERN BRANCH AGENCIES:

YOKOHAMA..... 240 Settlement.
SHANGHAI..... J. DELBOURGO, 29 Rue du Consulat.
HONGKONG..... A. R. MARTY, 2 Pedder-st.

Spanish Royal Mail



S. S. ANTONIO LOPEZ

C.IA TRANSATLANTICA
Late Lopez & Co.

Under Contract with R. C. M. Government

DIRECT SERVICE BETWEEN

Manila, Singapore, Barcelona and Liverpool. Calling at Colombo, Port Said, Genoa, Cadiz, Lisbon, Vigo.

Regular passenger and freight service between

Manila, Singapore, Colombo, Suez, Port Said, Genoa, Barcelona, Valencia, Cadiz, Lisbon, Vigo, Coruna and Liverpool. Regular monthly service between Barcelona, Cadiz, New York, Cuba and Mexico. Through tickets from Manila to New York with change of steamer at Barcelona or Cadiz. Through bill of lading to all European ports and to Atlantic Coast Ports of U. S. A. Cargo for Naples transhipped at Genoa and for London and Hamburg at Liverpool . . . . . .

For freight and passage and full information apply to

AGENTE DE LA

COMPANIA TRANSATLANTICA

Plaza Moraga No. 9 Manila, P. I.

CLARKE'S

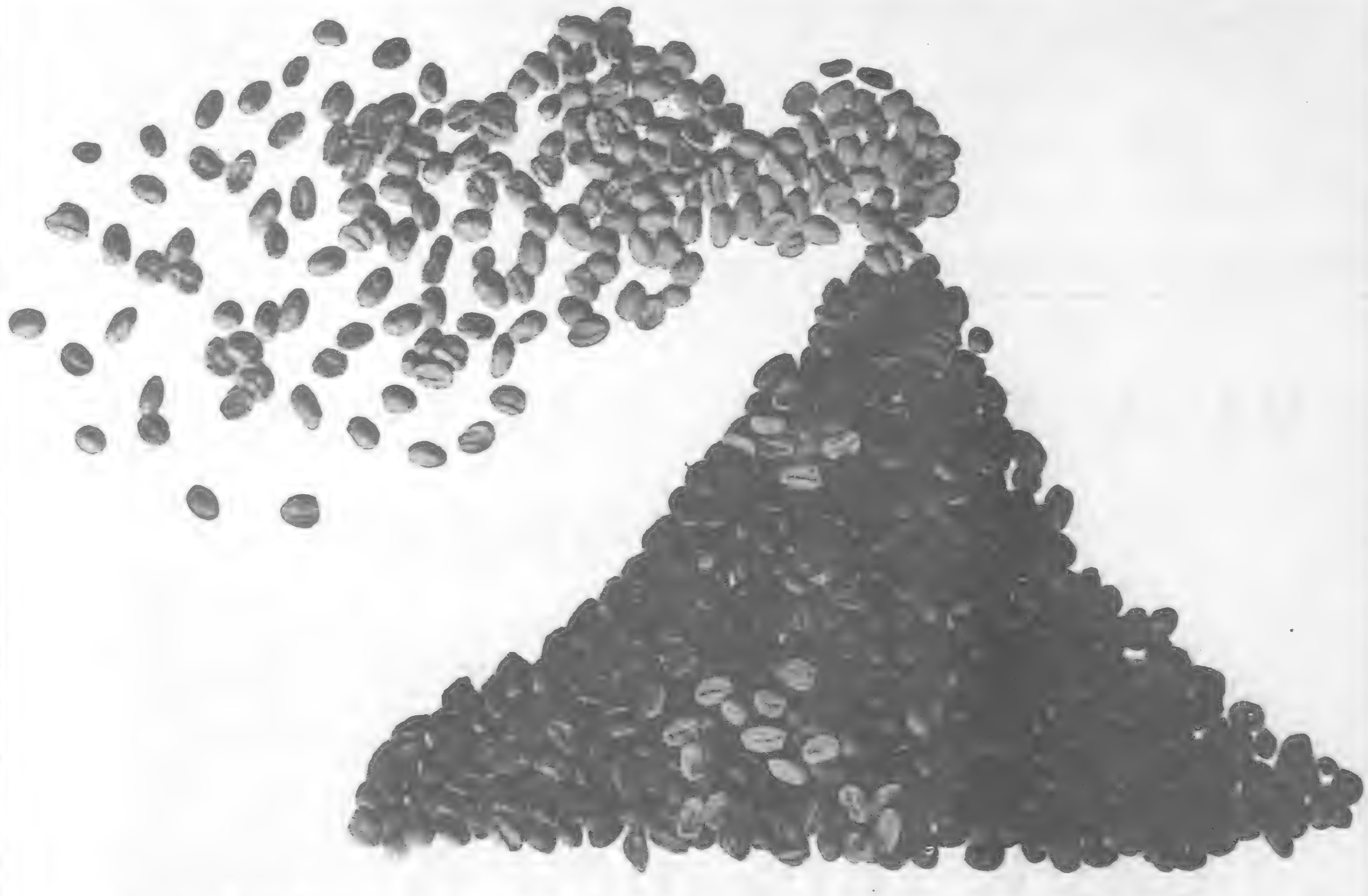
MAYON



COFFEE

MANILA PHILIPPINE IS.

The Brand That Made The Mountain Famous



CLARKE'S MAYON COFFEE

EQUALS "SATISFIED CUSTOMERS"

Once Tried Always Used—Never Refused

THE YOKOHAMA SPECIE BANK, LTD.

Capital (Paid-up): Yen 24,000,000 **Reserved Fund: Yen 15,900,000**

HEAD OFFICE **YOKOHAMA**

PRESIDENT

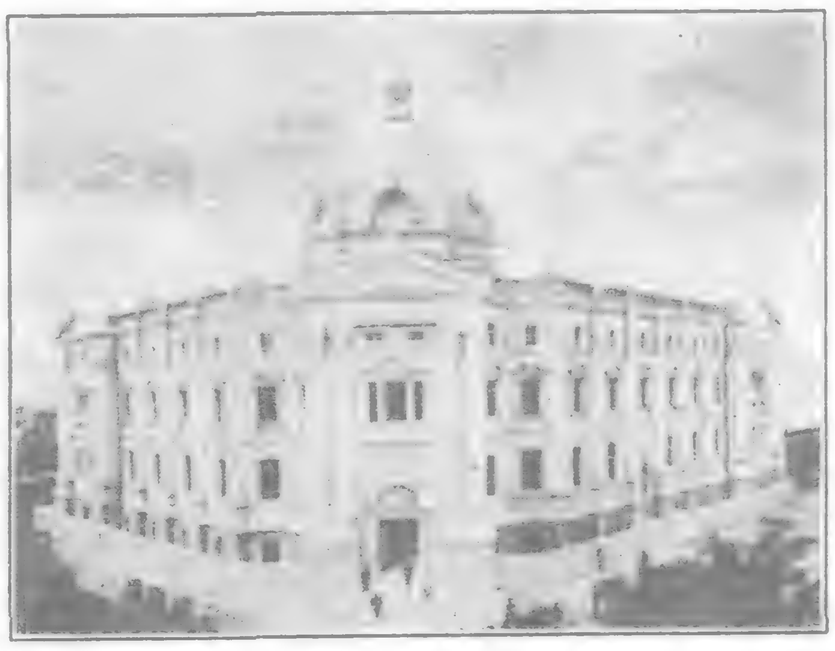
BARON KOREKIYO TAKAHASHI

DIRECTORS

NAGATANE SOMA, ESQ.
RIEMON KIMURA, ESQ.
IPPEI WAKAO, ESQ.
MASUNOSUKE ODAGIRI, ESQ.
TCHUNOSUKE KAWASHIMA, ESQ.
KOKICHI SONODA, ESQ.
ROKURO HARA, ESQ.
YUKI YAMAKAWA, ESQ.
VISCOUNT YATARO MISHIMA
HYOKICHI BEKKEY, ESQ.

GENERAL MANAGER

YUKI YAMAKAVA, ESQ.



HEAD OFFICE OF THE YOKOHAMA SPECIE BANK, YOKOHAMA

HEAD OFFICE

Every description of Banking business transacted.

For particulars, apply to the Manager.

Certified cheques on this Bank will be taken by the Custom House as cash in payment of duty.

Special Safe Deposit's Boxes are provided in the Vault of the Bank.

T. KAWASHIMA, Manager

Yokohama, September, 1909.

BRANCHES AND AGENCIES:

Tokyo	Hankow	Osaka	Newchwang	Lyons	Ryojun (Port Arthur)
Nagasaki	Peking	London	Liaoyang	Honolulu	Fengtien (Mukden)
New York	Dairen (Dalny)	San Francisco	Antung-Hsien	Shanghai	Changchun
Bombay	Tiehling	Hongkong	Kobe	Tientsin	

Correspondents at all the chief commercial cities in the world.

LONDON BANKERS:

Parr's Bank, Ltd.
Union of London & Smith's Bank, Ltd.
London Joint Stock Bank, Ltd.

"LA ROSA FILIPINA"
"LA ELZARDO"

Brands of Genuine Philippine Cigars
MADE Exclusively of PURE MANILA Leaf

Castle Bros.-Wolf & Sons

245 DRUM STREET, SAN FRANCISCO

General Distributors for the United States

Shanghai Gas Company, Ltd.

Offices: THIBET ROAD Show Room: NANKING ROAD

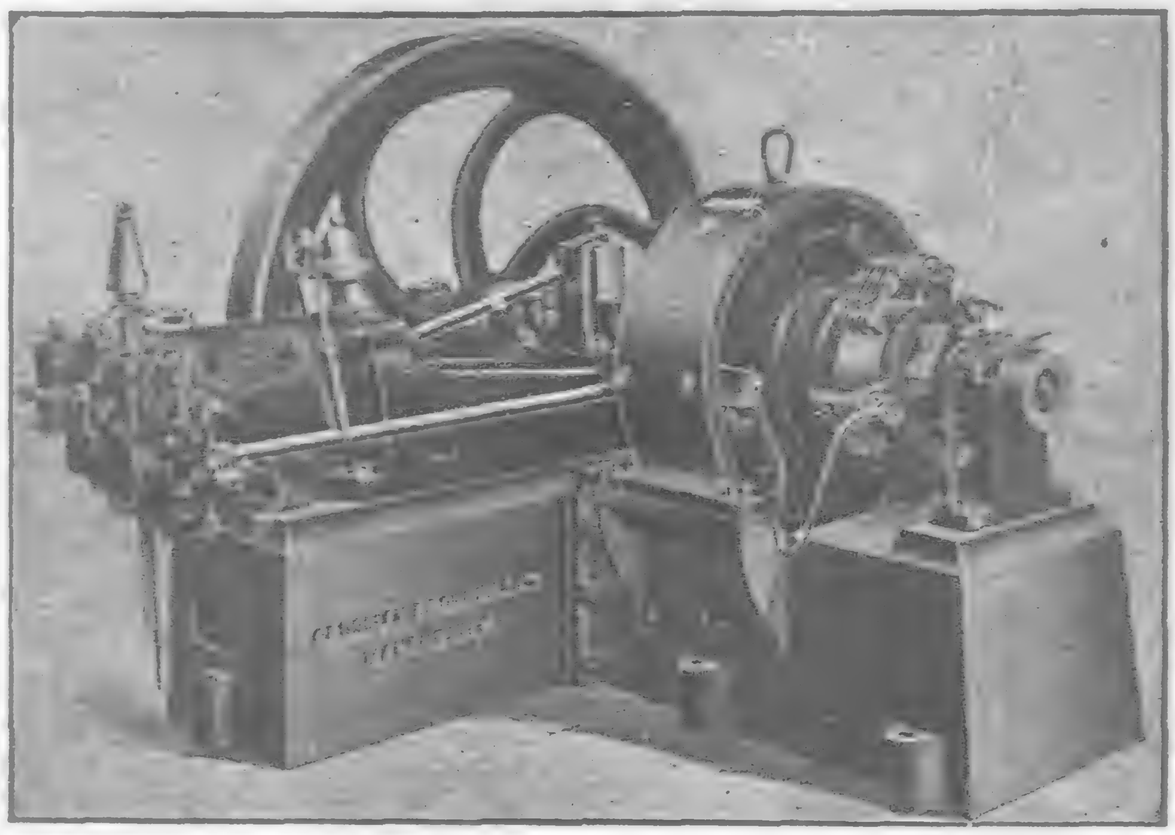
To obtain Light, Heat or Power in the most economical way

威斯麟

USE GAS

The Shanghai Gas Company let on loan (free) Gas Cookers, Gas Fires and Radiators.
Also High Power Lamps and Geysers on hire.
Large assortment of Welsbach Gas Fittings always kept in Stock.

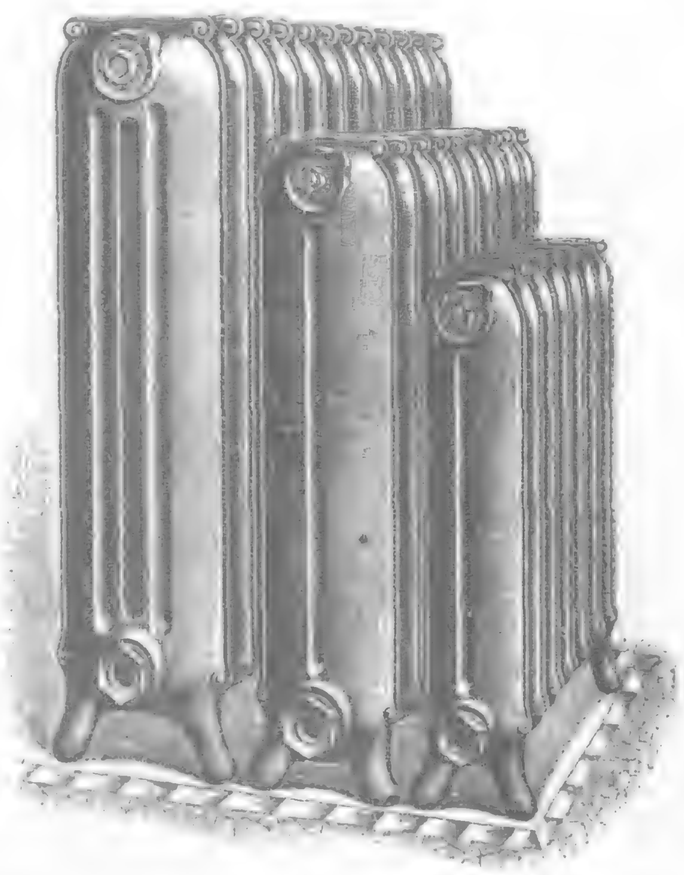
APPLY FOR PARTICULARS



4 KILOWATT PLANT, DIRECT CONNECTED TO CROSSLEY ENGINE

Agents for CROSSLEY BROS.

Shanghai Waterworks Co., Ltd.



STEAM AND HOT WATER

Heating

installations, hot and cold water services for domestic requirements, installations for protection against fire and all sanitary services estimated for and carried out -:- -:- -:- -:-

Baths
Lavatories
Cooking ranges, etc.,
Kept in stock

Show Room:
2A NANKING ROAD

Head Offices:
69 KIANGSE ROAD

TELEPHONE 1108.

TELEGRAPHIC ADDRESS:
"HARDWARE,
SHANGHAI."

HEATING,
LIGHTING
AND
SANITARY
ENGINEERS.

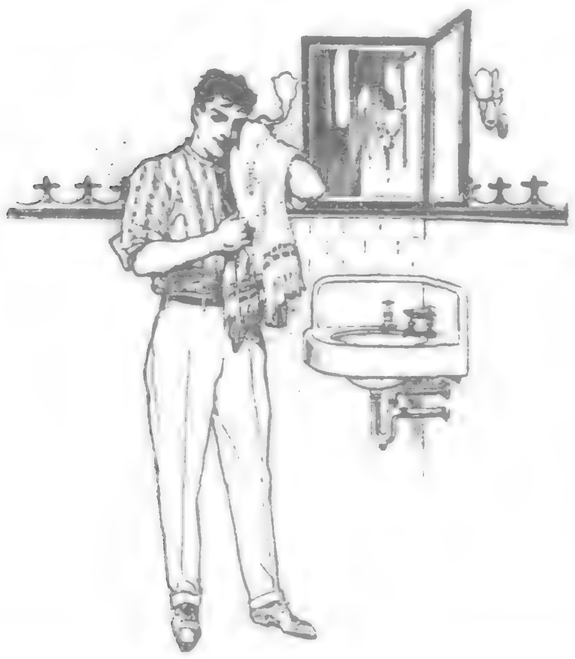
GORDON & COMPANY

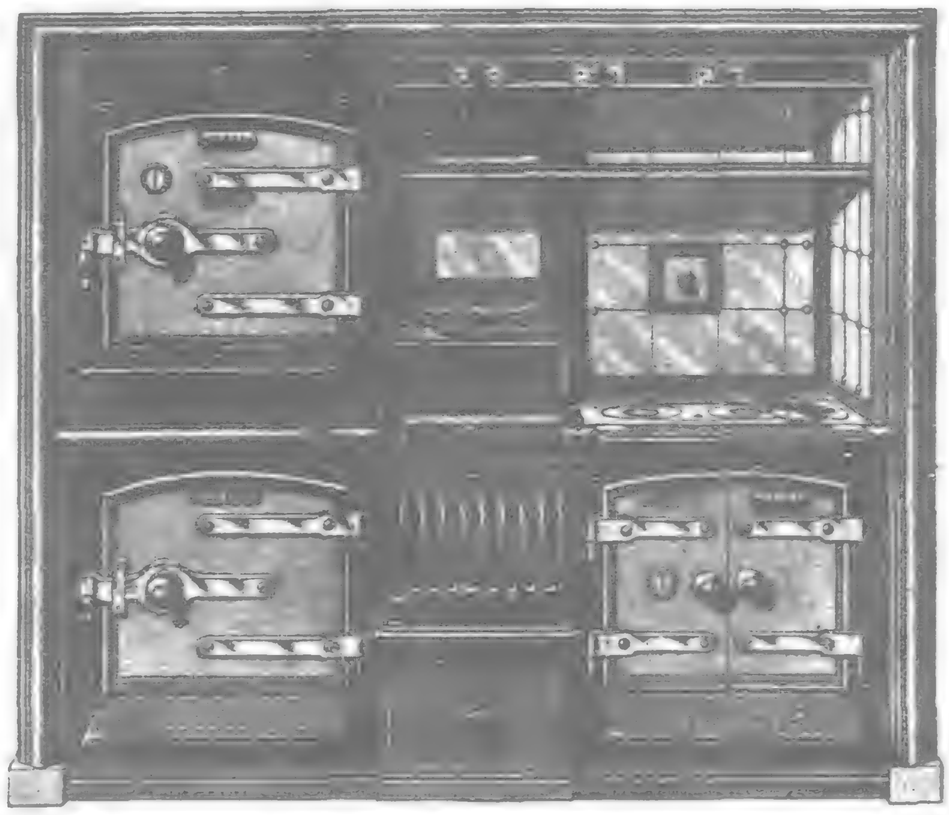
110 SZECHUEN ROAD, SHANGHAI

MODERN BATH-ROOM LUXURIES

HOT AND COLD WATER AND SANITARY FITTINGS

OUTPORT WORK A SPECIALTY





NEW CUMBERLAND RANGE

STEAM OR HOT WATER HEATING PLANTS

AGENTS FOR THE CARRON COMPANY OF FALKIRK, SCOTLAND

STOVES AND FIRE GRATES



SAN MIGUEL BREWERY

MANILA, P. I.

The Largest and Most Modern *Brewery*

IN THE FAR EAST

Get into the Habit of Asking for *San Miguel*

IT IS ABSOLUTELY PURE

Containing No Trace of Injurious Chemicals

THE PHILIPPINE JOURNAL OF SCIENCE

A Journal Devoted to the Scientific and Commercial Investigation of the Tropics.

EDITOR: PAUL C. FREER, M. D., Ph. D.

CO-EDITOR: RICHARD P. STRONG, Ph. B., M. D.

Published by the Bureau of Science, Government of the Philippine Islands.

Section A includes papers on (1) chemical research work, special stress being placed on the investigation of the natural resources and products of the Islands, (2) geology, mineralogy and mining, (3) systematic and economic entomology, ornithology and ichthyology, and (4) the ethnology and ethnography of the Malayan group.

Section B is devoted to studies on the causes, etiology, pathology, prophylaxis and treatment of tropical diseases; serum therapy and work on immunity.

Section C presents the results of research in both systematic and economic botany.

It is the intention to divide Section A in the near future and to form an additional section (D) which will be devoted to chemistry, geology, mineralogy and mining.

SPECIMEN CONTENTS OF RECENT NUMBERS:

Vol. IV.—1.—Section A: 91 pages; photographic plates, maps, etc.

FERGUSON, HENRY G. Physiography of the Philippine Islands.
SMITH, WARREN D. Contributions to the Physiography of the Philippine Islands.
BEAN, ROBERT BENNETT. Filipino Ears. A classification of Ear Types.
GRIFFIN, LAWRENCE E. Two New Species of Snakes Found in the Philippines.
SEALE, ALVIN. The Fishery Resources of the Philippine Islands.
II. Sponges and Sponge Fisheries.
McGREGOR, RICHARD C. A Collection of Birds from Northern Mindanao.
McGREGOR, RICHARD C. Philippine Ornithological Literature, II.
EDITORIAL.
REVIEW.

Vol. IV.—3.—Section B: Photographic plates, diagrams, etc.

COCA, A. F. Upon the Bactericidal Substances in Fibrin.
MARTINI, ERIC. The Development of Piroplasma and Trypanosoma of Cattle in Artificial Culture Media.
GARRISON, PHILIP E. and LEYNES, RICARDO. The Development of the Miracidium of Paragonimus Under Various Physical Conditions.
GARRISON, PHILIP E. and LLAMAS, ROSENDO. The Intestinal Worms of 385 Filipino Women and Children in Manila.
ARON, HANS. Some Investigations Concerning the Food and Nutrition of the Filipino People.
STRONG, RICHARD P. The Relation of the Indian Form of Relapsing Fever to African Tick Fever.
GRIFFIN, LAWRENCE E. Poisonous Snakes of the Philippine Islands.
EDITORIAL.

Vol. IV.—2.—Section C:

BRAND, A. Additional Philippine Symplocacae.
COPELAND, EDWIN BINGHAM. New and Interesting Philippine Ferns.
MERRILL, E. D. A Revision of Philippine Connaraceae.
MERRILL, E. D. A Revision of Philippine Loranthaceae.
RIDLEY, H. N. The Scitamineae of the Philippine Islands.

PRICES:

Section A. $2, U. S. currency.
Section B. $3, U. S. currency.
Section C. $2, U. S. currency.
Entire Journal $5, U. S. currency.
Single Numbers, 50 cents, U. S. currency.

FOREIGN AGENTS:

THE MACMILLAN COMPANY, 64-66 Fifth Avenue, New York City.
Messrs. WM. WESLEY & SON, 28 Essex Street, Strand, London, W. C.
Mr. MARTINUS NIJHOFF, Nobelstraat 18, The Hague, Holland.
Messrs. MAYER & MULLER, Prinz Louis Ferdinandstrasse 2, Berlin, N. W.
Messrs. KELLY & WALSH, LIMITED, 32 Raffles Place, Singapore, S. S.
Messrs. A. M. & J. FERGUSON, 19 Baillie Street, Colombo, Ceylon.

Write to Business Manager, Philippine Journal of Science, Manila, P. I., for sample copy and descriptive matter; or to any of the agents listed above.

To the Capitalists of the Philippines

Eight thousand (8000) shares of "The East Batan Coal Mining Co., Inc." are offered for a short time only to the public at the par value of ₱50 a share. The prospectus of the Company may be had at the Manila office of the "Chartered Bank of India, Australia and China."

The chief possession of the company is the ownership and control of coal beds of unlimited extent situated in close proximity to the sea. More than half a million pesos have already been put into the property. There is now blocked out coal to the value of ₱3,000,000 at the market price which is ready for sale as soon as sufficient transportation is provided. The money received from the sale of shares will be devoted to providing such transportation.

The quantity of coal imported into the islands during the past fiscal year amounted to 494,209 tons valued at more than ₱5,000,000.00.

During the past year the company sold 9,000 tons of coal to various steamers, which brought at the mines ₱6.50 a ton. The sale of coal for the coming year should easily exceed 100,000 tons as soon as there can be arranged the transportation of the coal to Cebu, Iloilo and Manila.

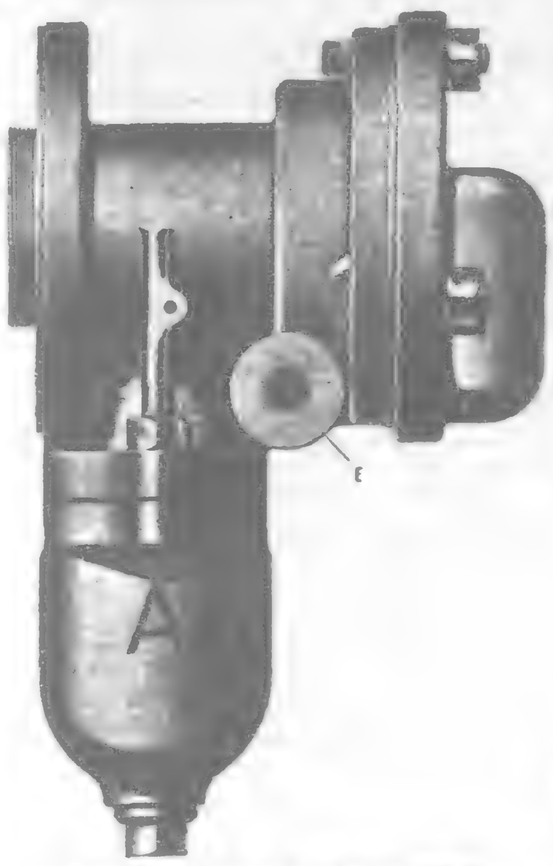
The Directors of the Company are:

J. J. Rafferty = = = = = = = = = = = = = = **President.**
A. U. Betts = = = = = = = = = = = = = = **1st Vice-President.**
Joaquin Castro Vy Suiguin = = = = = = **2nd Vice-President.**
Joaquin Castro & Co. = = = = = = = = = = **Treasurers.**
E. S. Daniels = = = = = = = = = = = = **General Manager.**
Alfonso Zarate Sy Cip = = = = = = = = = = **Member.**
Harold Homan = = = = = = = = = = = = = **Secretary.**

This is a new development of the natural wealth of the Philippines;
An enterprise already established on a paying basis; and
A sure and permanent investment which promises large returns.

The East Batan Coal Mining Co., Inc.

The Manila branch of The Chartered Bank of India, Australia, and China will receive subscriptions and the prospectus of the Company may be obtained there or upon application to any of the above directors.



WESTINGHOUSE IMPROVED TRIPLE VALVE ($3\frac{1}{2}$")

THE WESTINGHOUSE AIR BRAKE

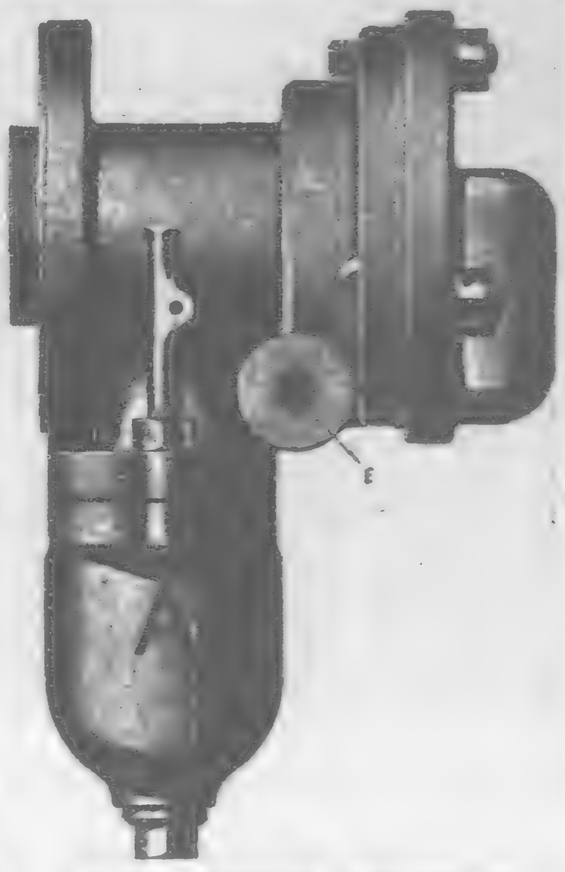
FOR OVER 30 YEARS THE STANDARD AIR BRAKE OF THE RAILWAY WORLD

THE 3½" IMPROVED WESTINGHOUSE TRIPLE VALVE: SIMPLE IN CONSTRUCTION AND ESPECIALLY DESIGNED TO MEET THE REQUIREMENTS OF FAR EASTERN RAILWAYS

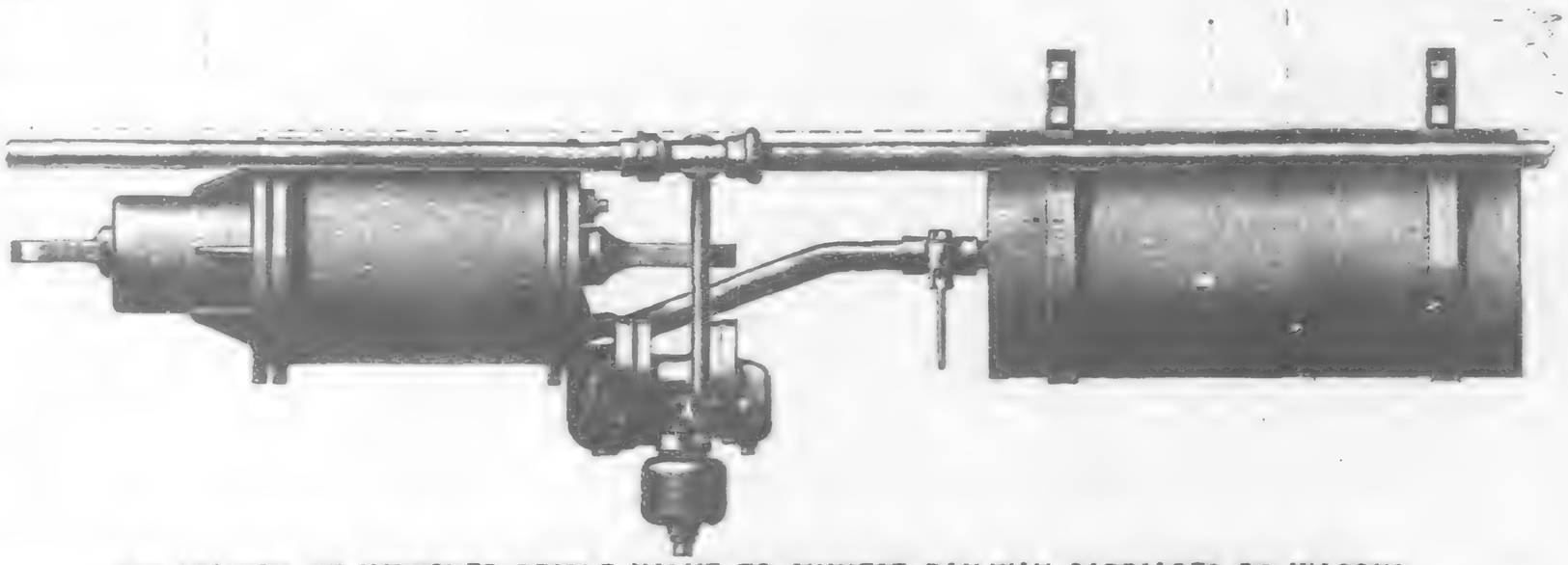
MANUFACTURED AND FURNISHED SOLELY BY

The Westinghouse Brake Co., Ltd., London

JARDINE, MATHESON & CO., Ltd., Sole Agents for China



WESTINGHOUSE IMPROVED TRIPLE VALVE ($3\frac{1}{2}$")

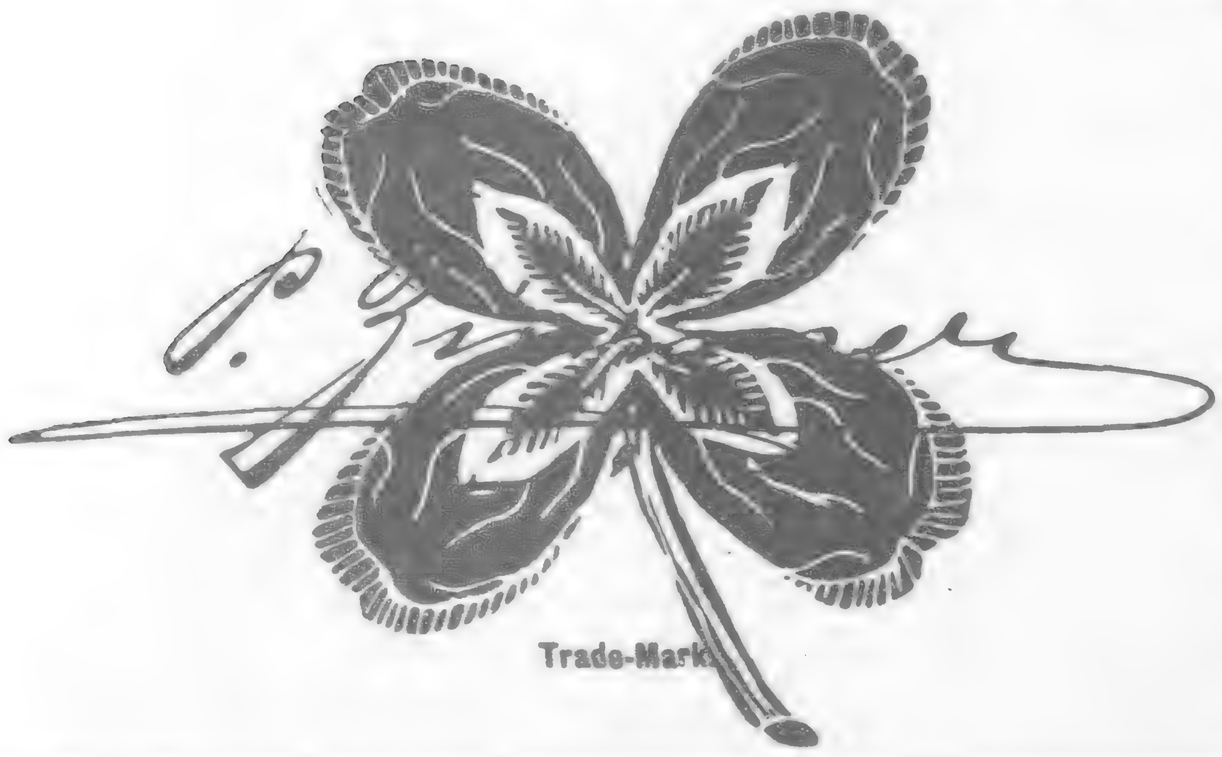


APPLICATION OF IMPROVED TRIPLE VALVE TO CHINESE RAILWAY CARRIAGES OR WAGONS

RAVAGES OF THE WHITE ANT DESTROY MILLIONS IN VALUE ANNUALLY

BUT THE USE OF

ZIMMER'S WHITE ANTS DESTROYING AND WOOD PRESERVING COMPOSITION not only DESTROYS THE WHITE ANT but PRESERVES WOOD FROM DRY ROT OR DECAY : : : : : : :



Patented in India, Straits Settlements and Other Countries : : : : : : : : : : : :

It is indispensable to the Building Trade and saves millions to Manufacturers and Railway Companies in the preservation of beams, wooden structures, sleepers, telegraph poles, etc.

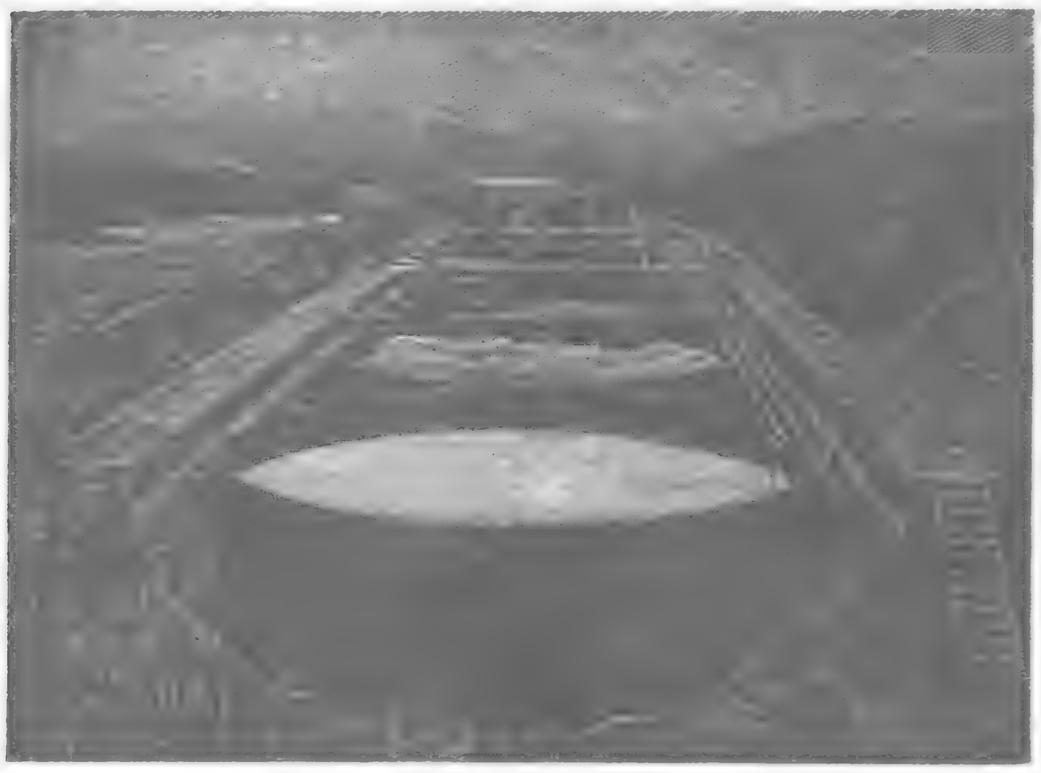
Once coated by this substance, the White Ant and all kinds of insects give the wood a wide berth. It is also a disinfectant : : : : :

28 Calle David — Manila, P. I.

SOLE AGENTS

SPRUNGLI & CO.

Cable Address: "URANUS" — P. O. Box 453.



CYANIDE PLANTS
AND
MINING TANKS
TANKS FOR ALL PURPOSES
PACIFIC TANK CO.
Manufacturers

318 Market Street, SAN FRANCISCO, CAL.

Write for Our Mining Catalog.

LAMBERT-SPRINGER CO.
INCORPORATED

99-107 PLAZA SANTA CRUZ, MANILA, P. I.

SOLE AGENCIES

The Bird-Archer Company's Marine Boiler Compounds.
Johnson's Wood Finishing Specialties.
Baltimore Copper Paint Company's Prepared Paints.
Brilliantshine Metal Polish.
"Lasco" Sanitary Fixtures.
Valvoline Lubricating Oils.

PLUMBING AND SANITARY APPLIANCES

Hardware, Paints, Oils, Engineers' Supplies, Rubber Goods, etc.

ARMY AND NAVY CONTRACTORS

P. O. BOX 885
PHONE 433

CABLE ADDRESS:
LAMBERTMES, MANILA

CODES USED:
WESTERN UNION
A. B. C. 5th EDITION
AND PRIVATE



MALTHOID ROOFING

has been the highest type of roof construction for a quarter-of-a-century. A compact, indivisible sheet of high-grade materials, scientifically conbined, absolutely standardized—uniform in manufacture, quality, thickness and weight. Malthoid is the name of the brand that is always uniform, that is made only in one quality and that the best—the same for everybody.

FAR EASTERN AGENCIES:

SHANGHAI	Messrs. Samuel, McGregor & Co., Ltd.
TIENTSIN, China	Messrs. William Fobes & Co.
HANKOW, China	Messrs. Westphal, King & Ramsay, Ltd.
HONGKONG and CANTON	Messrs. Arnhold, Karberg & Co.
VLADIVOSTOCK, Kharbin, Kharbarwjsk and Blagovestcheonst	Messrs. Kunst & Albers.
TOKIO, KOBE, DALNY and SEOUL	Messrs. Fujiwawa & Co.
SINGAPORE and PENANG	Paterson Simons & Co., Ltd.
BANGKOK, Siam	Messrs. G. Kluzer & Co.
SAIGON	Messrs. Allitini & Co.
JAVA and Dutch East-Indies "LINDETEVES" Sourabaya and Samarang	

DISTRIBUTERS FOR THE PHILIPPINES

CALIFORNIA MANILA LUMBER COMMERCIAL CO.

Offices: LACK & DAVIS Bldg. **Salesrooms under HOTEL METROPOLE**

THE FAR EASTERN REVIEW

COMMERCE • ENGINEERING • FINANCE

VOL. VI. MANILA, P. I., SHANGHAI, AND YOKOHAMA, OCTOBER, 1909 No. 5

THE CHINESE ARMY

(FROM OUR OWN CORRESPONDENT)

Shanghai, October 1st, 1909.

"No good man would be a soldier, no good iron would be a nail," runs a popular proverb in Chinese, and to carry arms was considered about the lowest degradation that could befall one. A soldier was likened unto a dog employed to watch a house, and for centuries no Chinese gentleman was found in the military service of his country. The result has been humiliating. Defeat after defeat at the hands of the despised barbarians, surrender and alienation of territory, threats and intimidation from every side, and all the indignities the strong is wont to heap on the weak, has been China's lot.

But the change has come. Slowly it has been driven home to the nation that the Analects of Confucius are impotent to ward off and conquer the barbarian rifles and big guns, and that if the nation is to exist, force must be met with force. It is a sad spectacle to witness the oldest nation in the world with ideals centered in the pursuit of peace and commerce, being compelled through the exigencies of our 20th century civilization to shake off its hoary traditions, and reluctantly accept the last resort to secure justice and fair dealing from the outer world.

Li Hung-chang initiated the movement over ten years ago, by establishing military schools on modern lines, but the inherent antipathy of the better classes to adopting a military career made it difficult to find students, and it was not until four years ago that the movement received any support from the country. Yuan Shih-kai's remarkable success with the Northern Army inspired a sudden high respect and admiration for the new soldiers, and the effect of Japan's victory over Russia, on the Chinese mind, completely broke down the old ideas. What Japan could do, China could do, for are we not the superior race, reasoned the latter.

The Imperial Edict authorizing the creation of 36 divisions, and a programme extending over 10 years ending with the establishment of an Imperial Army of 1,085,976 men on a war footing quickly followed, and today the energies of the central and provincial authorities are being taxed to the limit to carry through the scheme. At the same time a large naval programme has been entered on, to be completed in 7 years, synchronizing with the time set for the creation of the army. The next seven years, therefore, marks the real crisis in the history of China. Her rulers and leading men believe, if her integrity is safeguarded until such time as her military and naval programme is completed, the Empire will then be well able to stand alone, command respect, and successfully combat any further encroachments on her authority. It is to be feared, however, that unless wiser counsels prevail, the younger element, already imbued with the military spirit, will not remain content with the existing situation, but will launch the Empire into a war for the recovery of lost territorial rights. Until pitted against a foreign foe, it is unprofitable to hazard an opinion as to the efficiency and fighting qualities of the Chinese. In their own opinion they are invincible, and this belief and their utter contempt for the foreign barbarians, constitutes the greatest menace to the peace of the world seven years hence. It takes centuries of warfare and military traditions to make good fighting men, and in this fact lies the pity of the spectacle of a peaceful

(Continued on page 175.)



LIEUTENANT GENERAL CHANG PIAO AND STAFF,
COMMANDING THE 8TH DIVISION OF THE LU-CHUN, AND OF THE SUNG PUAN TSEN, SZECHUAN.
COMMANDER-IN-CHIEF OF THE SOUTHERN ARMY IN THE LAST AUTUMNAL MANEUVERS IN ANHUI PROVINCE.

U10
+F22
v.6

THE FAR EASTERN REVIEW

GEO. BRONSON REA, M. E.
PUBLISHER

WILLIAM CROZIER, Editor.

COMMERCE :-: ENGINEERING :-: FINANCE

A Monthly Review of Far Eastern Trade, Finance and Engineering, Dedicated to the Industrial Development and Advancement of Trade in the Philippines and Far Eastern Countries

PUBLICATION OFFICE:
MANILA, PHILIPPINE ISLANDS

CHINA OFFICE
WHITEAWAY LAIDLAW BUILDING
Shanghai

UNITED STATES REPRESENTATIVES:
J. ROLAND KAY CO.
Teutonic Building, Chicago, Ill.

GREAT BRITAIN:
PROBSTHAIN & CO.
14 Bury Street British Museum, London, W. C.

SUBSCRIPTION AGENTS:

HONGKONG	KELLY & WALSH, LTD.
SINGAPORE	" " " "
YOKOHAMA	" " " "
SHANGHAI	" " " "
TIENTSIN	TIENTSIN PRESS, LTD.
WASHINGTON, D. C.	BRENTANO'S.

SUBSCRIPTION RATES: Philippines, United States, Canada, and Mexico, $2.50 U. S. C. per year. To all other countries in the Postal Union, $3.00 per year. Single copies 25 cents, U. S. C.

ADVERTISING RATES will be mailed on application.

Communications pertaining to the Editorial Department should be addressed to THE EDITOR.

ENTERED AT POST OFFICE, MANILA, P. I., AS SECOND CLASS MATTER.

MANILA, SHANGHAI, AND YOKOHAMA, OCTOBER, 1909

CONTENTS

	Page.
The Chinese Army	171
The Philippine Bureau of Labor	172
The Whangpoo Conservancy	172
New Liquid Cement Invention	173
Death of H. E. Chang Chih-Tung	173
The Carnival Industrial Exposition at Manila	173
Personal	174
Obituary	174
Reviews	174
Alcohol from Waste Product	174
Rich Ore from the Tumbaga Mine	174
Zamboanga Cold Storage Co.	174
The Imperial Heads of the Chinese Army	175
The Army Programme	175
Distribution of Divisions	177
Imperial Guard Corps	178
Activity in the Border Provinces	178
Mongolia	182
Cavalry Horses	183
Military Schools	183
The Banners	184
Finances	187
Mining Journal's 75th Anniversary Number	190
The Philippines and American opportunities for Trade Expansion	194
The Priestman Dredger, Excavator & Elevator	197
Huntington Mill for Paracale	199
September Shipments Philippine Cigars	199
Far Eastern Company Reports	200
F. E. Railway News	201
Contracting News	202
East Batan Coal Company's Mines	203
F. M. S. Tin Output	204
Philippine Gold Output	204
New Philippine Hemp Stripping Machine	204
Far Eastern Engineering, Construction, Industrial, Commercial, and Financial News	205
London Metal Market	207
Hemp Statistics	207
Far Eastern Share Quotations	208
Additional Shanghai List	210
Singapore Share Quotations	211
Yokohama Share Quotations	212
Philippine Share List	213
Index to Advertisers	214

THE PHILIPPINE BUREAU OF LABOR

A laudable effort is being made by the Philippine Government to regulate the relation between employer and employee so as to avoid the serious effect of strikes upon the industries of the country and their menace to the welfare of the laboring classes. For this purpose the bureau of labor was authorized, and when properly organized it is believed will serve to smooth out many differences that have heretofore interfered with the greatest measure of co-operation between capital and labor, so necessary to the proper development of the resources of the islands.

The operations of this department are receiving every assistance on behalf of the Insular authorities and, while little may be said of the outcome, there is already evidence of the practical service this bureau may render to the cause once well under way, and enjoying the confidence of both sides of the labor question.

In the recent strike of cigar workers an effort was made to adjust differences, and with a measure of success. Indeed, the majority of the workers subscribed to the arrangement arrived at through the efforts of the Bureau, and had there been a general sentiment among the striking workmen to abide by the decision of the majority, further trouble would have been averted. However, it became necessary for the authorities to intervene to protect the majority from the organized effort of the minority to intimidate and assault.

It was the first opportunity the Bureau found to offer its good offices, and its success in bringing about an adjustment satisfactory to the manufacturer and the majority of the employees is far from discouraging. It has served to impress upon the workingman that striking is a precarious method of winning substantial recognition, a costly experiment at best, and that such a course should only be taken after every other means have been exhausted. The Bureau of Labor is endeavoring to bring the industrial to a realization of his relation to the industry with which he is identified, of the loss sustained through strikes by both capital and labor remaining idle while some minor matter relative to the relationship of the two is being adjusted. The Bureau of Labor realizes that it will take some time to gain any measure of the confidence of the industrial unless the labor leaders cooperate in the work. This they failed to do in the recent trouble and have by their actions demonstrated their incapacity to properly serve the interests of their following or of the community.

We are glad to see, however, that great activity is promised in a campaign of education by the Bureau to develop among the workingmen a proper sentiment and attitude toward industrial questions.

The progress of this work will be watched with great interest by many who find the labor problem in the Far East a very serious one. Whether it be possible to destroy the old "jefe" system and substitute for it one in which individual intelligence will co-operate to its control, is a serious question confronting the different departments of Philippine industry.

The news from Canada would indicate that the legislation provided to prevent industrial warfare in the form of strikes and known as the "Industrial Disputes Preventative Investigation Act," which went into effect in 1907, has been a success. In *McClure's Magazine* for September, under the caption "The Best Way to Prevent Industrial Warfare," Ex-President Chas. W. Elliot of Harvard writes:

"The chief feature of the beneficent Canadian act called the Industrial Disputes Investigation Act was the requirement that, in the event of a dispute arising in any industry known as a public utility, it should be illegal to resort to a strike or lockout until the matters in dispute had been made the subject of an investigation before a board of conciliation and investigation, to be established under specified rules by the Canadian Minister of Labor. Under this act either party to a dispute may apply for the appointment of a board of investigation. Each of the two parties to the dispute may nominate one member of the board, and these two may select the third who serves as chairman of the board of three. If either party fails to nominate a member, the Minister of Labor appoints that member; and if the two members fail to agree upon the third member, the Minister appoints the third member. The board will therefore inevitably be constituted, and will go to work if either party to the dispute applies for an investigation."

"On the fifty-five applications received, strikes were avoided or ended in twenty-five coal mines and four metalliferous mines; in fifteen railroads and three street railways; in two bodies of longshoremen; in one body of teamsters and in one body of sailors; and in two industries not public utilities. There were two cases in which strikes were not averted or ended. Only two cases, therefore, out of fifty-five ultimately resulted in strikes."

"It is the best piece of legislation in the world for the prevention and settlement of lockouts and strikes in an important class of industries which, in the interest of the nation as a whole, ought never to be interrupted."

In connection with the above excerpts it might be well to note that of the 55 applications for the appointment of boards, seven were made by employers, 46 by employees, and two by both.

This encouragement may serve to give the Bureau of Labor for the Philippines encouragement and incline the pessimistic to reserve their verdict until every opportunity is given to work out this great problem among a people but recently encouraged to individual effort and under conditions and environments that, to say the least, are discouraging.

The high standard of intelligence of the Canadian industrial must be considered in the promising outcome of a year's experience in the prevention of industrial revolutions. And whether the same methods would apply successfully to industrial problems in the Philippines may, we believe, be measured by the relative individual intelligence of the Philippine worker and the Canadian industrial.

THE WHANGPOO CONSERVANCY

The suspension of the Whangpoo Conservancy operations has been the subject of much comment in the Shanghai press, and shipping circles are greatly interested as to the action of the Consular Body upon representations made by the Shanghai Chamber of Commerce to secure the unanimous consent of the members of the Conservancy Board for the closing of the Ship Channel and the provision of funds to continue the necessary dredging operations. The following correspondence between the Secretary of the Shanghai Chamber of Commerce and the Secretary of the Whangpoo Conservancy Board throws some light on the situation:

Shanghai General
Chamber of Commerce.

Shanghai, 11th September, 1909.

DEAR SIR:—

In consequence of rumours having reached my Committee that the work in connection with the Conservancy of the Whangpoo is not proceeding as expeditiously as is desirable, I venture to ask for information on the following points—whether—

1.—Permission has been granted to the Engineer-in-Chief to close up the upper end of Ship Channel.

2.—If sufficient funds are available for the purpose.

3.—If sufficient funds are also available for continuing the dredging operations in the "Astraea" Channel, so as to ensure that Channel being available for shipping when the other is closed.

I am, dear sir,

Yours faithfully,
L. E. CANNING,
Secretary.

A. G. H. CARRUTHERS, Esq.,
Secretary, Whangpoo Conservancy Board.

THE WAR MINISTER AND CHIEFS OF THE PEI-YANG ARMY



Front Row, from left to right: Colonel YEN TUN YUAN. Colonel CHAO CHUNG SAN. TIEH LIANG, War Minister (only photo of the War Minister in Foreign Uniform); YUAN SHIH-KAI, Commander in Chief; General FENG WANG FU. General WANG.

Middle, from left to right: Surgeon General HSU HUA CHING, Director of Peiyang Army Medical College; Paymaster General LU, Director of Peiyang Treasury; General FENG YU-MUN; Colonel LO LANG TSAI. General TIENG TSUNG YU. General HSU KOU CHUNG. General SHA SIN YU. General TUAN CHIH-KUEI. General TUAN TSU CHUN. Colonel CHUN HSU-FENG; General MA LING-PIAO.

Back, from left to right: PAN CHING SAN. Colonel YUN YU-TSUN; Brigadier General CHANG HUAI-CHIH.

Office of the Whangpoo
Conservancy Board.

Shanghai, 12th September, 1909.

DEAR SIR:—

In reply to your letter of the 11th September, I am directed to inform you:

1st.—That at a meeting of Conservancy Board on the 1st September, permission to proceed with the closing of Ship Channel was given to Mr. de Rijke by the Commissioner of Customs and the Taotai's representative, Mr. Onanu. Subsequently, in a letter dated 7th moon 25th day (9th September 1909) to the Commissioner of Customs, the Taotai disclaimed all responsibility if the closing of Ship Channel was proceeded with.

2nd.—In the opinion of the Commissioner of Customs there are sufficient funds to close Ship Channel if the accumulated interest fund in Taotai's hands is paid to Conservancy account.

3rd.—Dredging operations at a slower rate than hitherto can be continued for about six months, if this fund which amounts to about Sh. Taels 190,000.00 is handed over; this should ensure the "Astraea" Channel being available for shipping (it is being used by practically all the shipping now) when the other is closed though Mr. de Rijke considers even more dredging may be required in it.

Yours faithfully,

A. G. H. CARRUTHERS,
Secy. Whangpoo Conservancy Board.

L. E. CANNING, Esq.,
Secretary, Shanghai General Chamber of Commerce.

After this correspondence the following letter was addressed to D. Siffert, Esq., Consul General for Belgium and Senior Consul, by William D. Little, Esq., Chairman, Shanghai General Chamber of Commerce:

Shanghai General
Chamber of Commerce.

Shanghai, 18th September, 1909.

D. SIFFERT, Esq.,
Consul-General for Belgium
and Senior Consul.

SIR:—

I have the honor to enclose copies of letters exchanged with the Conservancy Board.

My Committee consider the reply to their letter of the 11th instant unsatisfactory, and now appeal to the Consular Body to obtain the united consent of the Conservancy Board to the closing of the Ship Channel, and the provision of any necessary funds required to continue the dredging operations as expeditiously as is required by the Engineer-in-Chief.

It will, no doubt, appear to you and your colleagues that the closing of Ship Channel can only go on at the same time as dredging in Junk Channel, as the Engineer-in-Chief requires the mud dredged to fill up the former channel.

At the present time only two-thirds of the stream is running through the new channel and to anyone who has followed Mr. de Rijke's scheme, it must be clear that to prevent any silting up in Junk Channel, dredging must be continued.

I have therefore the honor to request that representations be made, as soon as possible, to the Authorities concerned, as my Committee are convinced that the work at the present juncture is of the utmost importance.

I have the honor to be, sir,

Your obedient servant,

WILLIAM D. LITTLE,
Chairman.

The above letters with estimates of the cost of the amelioration of the river were submitted at a meeting of the Chamber, September 27th. So far as has been learned no action has been taken to provide for the continuation of this important work.

According to the estimates submitted by John S. de Rijke, Esq., Engineer-in-Chief of the Board, $5,340,000 will be needed for actual work during the three years ending July 1st, 1912, and a further expenditure of $2,558,820 during two years ending July 1st, 1914, making in all $7,898,820. This does not include the cost of administration which is estimated will cost about $294,000 annually.

Referring editorially to the minutes of the Shanghai General Chamber of Commerce meeting, the *North China Daily News* says that they add nothing to what the *News* had already published "except in so far as the Chamber is shown to be taking the strongest possible attitude in the matter. No hint is given of the reasons for which the accumulated interest fund (of Tls. 190,000) in the Taotai's hands is not paid over. Perhaps none is required; and since the question has passed into higher hands there is little use in pursuing a controversy with the local native authorities. It is to the Chinese Government that Shanghai has to look for satisfaction; and in that it is nearly a fortnight since this question was brought to the notice of the Diplomatic Body, we cannot too strongly protest against the delay in arriving at some definite conclusion. It is fairly generally understood that the Chamber of Commerce adjourned its meeting last Monday until to-day in the hope that the intervening week would have brought some answer from Peking. What actually appears to have happened is that the period allotted to the Chinese Government, within which to choose between providing funds for the dredging and reversion to the Peace Protocol of 1901, has been extended. Whether the duration of that period is to depend upon the actual needs of the Huangpu or on the superior wisdom of Peking is not apparent. In the meantime every day's delay increases both the danger of work done being undone, and of the ultimate cost of completion. At the time that the last soundings were taken, Astraea Channel showed a depth at low tide springs of 18 ft. But the width over which this obtained was not equal; and only last Friday, if we are not misinformed, a ship drawing 20 ft. 6 ins. touched bottom where she was supposed to have found 24 ft.

"As has been said before, experts differ as to the length of time for which dredging may be suspended. But in that it must be resumed one day or another, no good result can come of delay, still less, in view of the Chinese Government's familiar methods of procrastination. of indecision."

NEW LIQUID CEMENT INVENTION

A revolution in the cement industry is heralded in the Japanese Press as the result of the discovery of a new process of manufacture by the use of thermo-electricity. The process is secret and is controlled by Mr. Takashi, technical expert of the Japan Nitrogen Fertilize Company, and Mr. Tsuneichi Fujiyama of the same company. The *Japan Mail* gives the following description of the process:

"Ordinary cement is a compound of lime and clay, as every one knows, heated almost to fusing point that is, to 1,200°—1,400° of Celsius. The new product, which has been just patented, is made of the same materials, but the process of manufacturing is quite new. Instead of using coal for heating, the new cement is obtained by heating the mixture with thermo-electricity of the high degree of 3,000 of Celsius, at which point the matter is fused and becomes liquid, and is afterwards cooled. The use of thermo-electricity in the manufacture of cement has never been known, though Edison is said to have once tried it as an experiment, so the honor goes to the present inventors. By the new methods various imperfections, instability of quality, and expensive processes unavoidable under the existing method of manufacture will be obviated, besides many other advantages. Should the new cement prove popular, it will prove a severe blow to Portland cement manufacturers. Speaking of the new invention, a specialist says that whether liquid cement is ideally perfect or not is a question at present; and even granting that it is perfect, it is not certain whether it can be turned out on scale sufficiently large for economic purposes. It is necessary for starting a factory to obtain a place where hydro-electricity can be cheaply obtained, otherwise the practical utility of the invention will not be much."

DEATH OF H. E. CHANG CHIH-TUNG

His Excellency Chang Chih-Tung, Grand Secretary, Grand Councillor and President of the Board of Education, died at Peking, October 5th, after 47 years of active official life during which time he rose from a reader in the Hanlin Academy to the highest position in the gift of the Emperor. The late Grand Secretary was born in 1835 in Nan-pei, Chihli, and rose through the offices of provincial governor and viceroy of many provinces to the position of Grand Councillor to which he was appointed in 1906. He was recognized as a man of great literary ability and, while not practical in many ways, proved himself a friend of reform which inclined to greater facilities for education. He was instrumental in establishing several colleges and encouraged industrial education. He was jealous of China's ancient literature and customs, and his last years were marked by an effort to stem the tide in favor of western learning throughout the Empire. Perhaps the most important act of his long career from a foreign viewpoint was his refusal in 1900 to comply with an edict issued at the time of the Boxer troubles and directing all the viceroys and governors to send all available troops to assist the Boxers. It later developed that the edict was forged and issued by Prince Tuan, but there is reason to believe that Chang Chih-Tung saw that only disaster would follow such a course. His appointment to the Council was believed to have been made to counteract the influence of Yuan Shih-Kai, and whether this is true or not, it is recognized that had it not been for the opposition of the late Grand Councillor, the reform movement would have made much greater headway in the Empire.

His death is believed to have resulted from continued worry over the Szechuan-Hankow Railway Loan.

THE CARNIVAL INDUSTRIAL EXPOSITION AT MANILA

The plans for the third annual Philippine Carnival to be held in Manila from February 5 to 14, next year, have been completed, and already much of the initial work has been completed. The Manila carnival has now become the greatest annual affair of this sort in the Far East and its fame has spread to many far away lands, and the managers of the big festival have been assured that a large number of visitors from the United States, Hawaii, Japan, the China Coast, Straits Settlements, India and Australia will be in Manila during the carnival season next year, and it has been decided to make one of the main features of the big show a grand industrial exposition wherein will be shown all of the arts, handicrafts and natural resources of the Philippines.

The work of collecting the exhibits for this section of the carnival is under the supervision of the Hon. Dean C. Worcester, Secretary of the Interior of the Philippine Government, and he has already begun work on what, when it is completed, will be the largest, most interesting and most comprehensive collection of the industries of the Philippines ever gotten together.

One of the main features of this exposition will be the mining exhibit, which will show just what has been done and is now being done to develop the mineral resources of the Philippines. A large stamp mill is to be erected on the carnival grounds, which will crush ore during the whole carnival, and there will also be large models of native dredges, which will be placed alongside of models of the most modern and up-to-date dredging machinery to be found anywhere on earth.

The forestry bureau will make a very interesting exhibit, as will the bureau of agriculture. One of the most interesting features of the bureau of science will be silk culture, which is destined to be one of the most important industries of the Philippines within a very short while.

There is to be an agricultural congress in Manila during the carnival, which will be attended by the leading planters and other agriculturalists all over the islands, who will be addressed by experts in the various lines of

agriculture represented in the Philippines. They will be given lectures on the best methods of sugar production, on how to get the best results from cocoanuts, and the various makers of hemp machines will hold a contest to demonstrate the abilities of their various machines. The latter will be one of the main features of the carnival, for the contest will be under government supervision and, when it is finally completed, will show very conclusively which ones of the many fiber stripping machines which have been placed on the market in recent years are capable of doing the work claimed for them.

Invitations have been issued by the carnival association and the Governor General of the Philippines to the 300 business men of the Pacific coast of the United States who are to pay a visit to China early next year for the purpose of studying commercial conditions in that country, to extend their itinerary to include the Philippines and to be here during the carnival, and offering as an inducement the industrial features of the big carnival. It is believed that the invitations will be accepted, and if they are, it will be the means of bringing into close contact the producers of Philippine products and the men who buy them at home.

Taken all in all, the Philippine Carnival for 1910 promises to be the most successful affair of the sort ever attempted in this part of the world.

PERSONAL

Sir Chin Lung Liang-Sing has been appointed secretary to Prince Hsun and will accompany His Imperial Highness and his suite on his foreign tour of Europe.

Ex-President Fairbanks was given a dinner at the Metropole Hotel by the Manila Merchants' Association.

The latest news from Washington is to the effect that Minister Crane has been asked for his resignation by the State Department.

H. E. Chao Erh-Shun is reported to be slated for the post of Viceroy of Manchuria to succeed H. E. Hsi Liang who goes to Szechuan.

Thomas Cary Welsh, Esq., Assistant Executive Secretary of the Philippines, sailed for Europe early this month.

J. B. Suttor, Esq., Commercial Agent for New South Wales, and J. M. Sinclair, Esq., Commercial Agent for the State of Victoria, arrived at Shanghai the latter part of September. G. H. Medhurst, Esq., of Messrs. Dodwell & Company, returned to Hongkong last month after a vacation of 18 months in Europe.

Brevet Rank of Commissioner of Dockyards will be conferred upon H. E. Shang Chi-heng, Provisional Treasurer of Fukien, and he will be appointed manager of the Foochow Dockyard on the recommendation of His Imperial Highness Prince Hsun.

OBITUARY

The death of Mr. T. D. McKay, the veteran passenger agent of the Southern Pacific, on September 15th, at San Francisco, closed the career of one of the most progressive and popular transportation officials in the Far East. He was known in every port and his optimism had much to do with his marked success in the interests of his department.

The death of Mr. H. S. Hendry, one of the engineers of the Taikoo Dockyard and Engineering Company of Hongkong, occurred at Hongkong September 19th, at the age of 34. He was a native of Greenock, Scotland, and had served over three years with the dockyard previous to which he was connected with the Indo-China S. S. Company.

REVIEWS

The Recognition of Minerals, by C. G. Moor, M.A., F.I.C., late resident chemist of the Ashanti Gold Fields Corporation, late public analyst to the city of Exeter, public analyst to the county of Dorset and the borough of Poole, together with *Monographs on Geology, Ore Deposits, Etc.*, by Donald A. MacAlister, Assoc. R.M.S., F.G.S., is the latest volume on mining received from the presses of the Mining Journal, London, and perhaps no more valuable collection of notes has ever been compiled that could prove of greater practical value to the mining man and prospector. In the first paragraph of his introduction, the author writes: "This book is intended to assist the reader to distinguish minerals of commercial value from ordinary rocks and stones," and further he says: "It is hoped that as the book stands the book will enable any one to take any kind of mineral, rock or stone, and to form an opinion whether it is of commercial value or not." This promise has been fulfilled in the volume under review and mining men, as well as all interested in any way in the mining industry, should find a place for this collection of notes in the library. Price 7*s.* 6*d.* net.

Waterproofing, by Myron H. Lewis, C.E., is the subject of an interesting paper read before the municipal engineers of the city of New York and published by permission of the Engineering News Book Department. It is profusely illustrated with plates reproducing designs covering the work on important New York buildings, reservoirs, bleeding walls, elevator pits, etc. This paper should prove of the greatest value to engineers in assisting them in solving the waterproofing problem.

Modern Methods of Street Cleaning, by George A. Soper, Ph.D., Mem. Am. Soc. C.E., is an interesting comparison of methods of street cleaning in European cities and New York which makes the work an up-to-date review of the most modern methods for maintaining clean streets. It should prove of special interest to municipal engineers the world over. The Engineering News Publishing Co., New York.

ALCOHOL FROM WASTE PRODUCT

Wood Waste Distilleries News, edited by Carl Von Hartzfelt, M.C. of Cleveland, O., in the interest of the wood waste alcohol distillation industry, makes some interesting references to the success attained by the utilization of refuse products of the farms, decayed portions of crops, sawdust, etc., for this purpose at a cost of from six to eight cents a gallon which gives the cheapest possible supply of smokeless and odorless heat and light, and at the same time creates an industry that encourages thrift, saves money for the consumer and puts money in the pockets of the producer for something that was formerly considered of no value. The Wood Waste Distilleries Co. of Cleveland, Ohio, is making a specialty of supplying equipment to suit every condition, and a plant may be purchased from $950 up. Their notice in the advertising section of the REVIEW is of special interest.

RICH ORE FROM THE TAMBAGA MINE IN PARACALE DISTRICT

Five samples taken from different points on a slate dyke 149 feet in length and 45 feet wide assayed $16.12, $100.04, $35.55, $11.99, and $34.31 respectively, making an average of $39.61 a ton. These samples were entirely in slate exclusive of the rich veins of calcite. This is another confirmation of the richness of this property. It seems as the work progresses the ore gives greater and greater promise of richness and volume. The company expects to begin operations immediately.

ZAMBOANGA COLD STORAGE COMPANY

At a recent meeting of the stockholders of this company, it was decided to issue the remaining 200 shares of treasury stock, or what part of it is necessary, to build a new plant and install new machinery of greater capacity. The machinery is being built by the Vulcan Iron Works, San Francisco, and the new building is in the course of construction.

This company has met with unusual success as is evidenced by the increasing patronage.

NOTICE

Offers are invited for the property, buildings, mill, ice plant and engines formerly belonging to the Hongkong Milling Co., Ltd., and situate at Junk Bay in the Colony of Hongkong, particulars whereof are as follows:

1. *Property:*—New Kowloon Marine Lot No. 4, situate in Junk Bay, immediately outside the Lyemun Pass, within the New Territories of the Colony of Hongkong and half an hour by launch from the City of Victoria. The lot has a clear sea frontage of about 780 feet, reclaimed, levelled and walled, off which there is available draught of water to permit of easy access by large ocean going steamers. Area:—189,300 sq. ft. Held under Crown Lease for the residue of a term of 75 years from the 7th February, 1905, at an annual Crown Rent of $434, with a right of renewal for a further term of 75 years, upon certain conditions. Included in the demise is a right of user of a fine supply of fresh water from a stream adjoining the lot.

2. *Buildings.*--Mill and Cleaner House, 5 floors each, 50′×140′ and 15′ average clear height. Engine House, 65′×30′×18′ (high). Workshops, 60′×22′×18′ (high). Grain godown, 156′×280′×36′ (high). Flour Godown, 156′×80′×36′ (high). Latrines. Oil Tank, 18′ 6″ (diameter)×17′ (high). All built of red brick in cement mortar and completed in the year 1906. Bran godown 146′×40′×20′ (high), built of timber covered with galvanized corrugated iron. 50′ T head timber wharf extending 30′ beyond sea wall.

3. *Mill:*—A Double Unit Flour Mill complete, with a guaranteed capacity of 1600 barrels of flour of all grades per run of 24 hours, but under favourable milling of Pacific Coast wheat will produce 2,000 barrels per 24 hours. Supplied by the Wolf Co. of Chambersburg, Pa., U.S.A., at a cost of over U. S. $75,000. Erected in the year 1906 and guaranteed of the then most modern design and full sized.

4. *Ice Plant:*—One Can Ice making Plant on A Borsig's (Berlin) Anhydrous Sulphuric Acid System, with compressor, open air condenser, liquid cooler, ice tank, cans, frames, etc., can filter, belt driven crane for moving frames with ice cans, thawing off tank with tipping device, complete distilling plant, with pipes, valves, pumps, shafts, etc., complete. Producing about 20 tons per 24 hours in blocks about 50 lbs. each. Erected in 1908 and costing about Mex. $50,000.

5. *Engines:*—Three 3-cylinder Diesel Engines supplied in 1906 by Sulzer Bros. of Winterthur: two 250 hp. each and one 150 hp. Worked for about 18 months from beginning 1907. One 100 kw. generator 250 volts and one two panelled switchboard.

Offers for the above *en bloc* or in detail should reach the undersigned, from whom any further particulars may be obtained, not later than the 31st December, 1909.

DEACON, LOOKER & DEACON,
Solicitors for the Mortgagees,
1 *Des Voeux Road,*
HONGKONG.

THE IMPERIAL HEADS OF THE CHINESE ARMY



HIS IMPERIAL HIGHNESS, PRINCE TSAI-TAO,
HEAD OF THE MILITARY ADVISORY BOARD.

THE CHINESE ARMY

(Continued from page 171.)

nation assuming the garb of warriors. Abhorring the idea of force through so many centuries, accustomed to settle his differences by reason instead of the sword, the love of peace and disinclination to fight has become ingrained in the Chinese character, and it will take many years to root out this hereditary instinct in their nature.

But the issue must come sooner or later, and the fate of China will then be determined. Already the subsidized organ in Shanghai of the younger generation of Chinese officials in its weekly tirades against Japan, frequently refers to the terrible day of reckoning in store for the Japanese. Reflecting, as it does, the sentiment of many who expect to be in power several years hence, the world may well view with deep concern, and follow with interest the development of the programme China is now committed to. Meanwhile the market for rifles, guns, war ammunitions, and equipment for the many proposed arsenals, dockyards and depots will keep foreign factories working overtime, and this phase of the reform is what really appeals after all to the manufacturers of the world.

THE ARMY PROGRAMME

The new army scheme for China, originating with Yuan Shih-kai, embraces the organization and equipment of 36 Divisions exclusive of the Imperial Guard Corps of three divisions or 30,000 men now being formed in Peking. This new or National Army, as differentiated from the provincial troops, is to be called the Lu-Chun, and have a modern organization, copied almost bodily from the Japanese. The authority is vested in the Ministry or Board of Army Affairs (Lu-Chun-pu) at Peking, established by Imperial Edict dated June 1, 1907. This Board is at present composed of a President (H. E. Tieh-Liang,) two Vice-Presidents, two Councillors and two Secretaries. Prince Ching, the venerable Imperial Statesman, has held the post of Senior President of the Board, until relieved at his own request about a month ago. The Board is divided into a central department, a Military Council and ten bureaus. The first acts as a central registry and deals with all general matters, not allotted to the bureaus. The Council handles all matters of organization and intelligence, and the ten bureaus deal largely with corps matters, such as transport or quartermaster, commissary, arms, ammunition, artillery, forts, recruiting, military law, cavalry, etc. In addition to the bureaus, there is a General Staff divided into 5 bureaus and sub-divided into 15 sections. Its prescribed establishment is 58 officials and 14 military officers, who work out plans of national defense, and supervise generally the instruction of officers for the staff and control the military academies and schools. The active direction of the Lu-Chun is controlled by the Board, though for organization, discipline, supply and pay the provincial viceroys or governors are responsible. The latter are also responsible forthe efficiency of their troops, which are periodically inspected by generals attached to the central Board, but



HIS IMPERIAL HIGHNESS, PRINCE YU-LANG,
HEAD OF THE ARMY ADVISORY BOARD.



HIS EXCELLENCY, YUAN SHIH KAI.

appointed by the Throne for this special duty.

Each of the 36 divisions of the Lu-Chun is to consist of two brigades of infantry (four regiments), one regiment of cavalry, one regiment of artillery, one battalion of engineers, one battalion of transport, one hospital company, one balloon, and one machine gun section.

The infantry brigades, of two regiments each, will consist of three battalions of four companies each to the regiment, or six battalions to the brigade, each battalion to have a total of 659 officers, men, and servants. Of these, 504 are actual rifle bearers and 36 supernumeraries. The brigade strength will, therefore, be about 4,036 men.

The cavalry regiments are organized into three squadrons of 4 troops each, and each squadron has a strength of 363 officers and men—224 actual sabres and 16 supernumeraries. The regiment has a total strength of 1,116.

The artillery regiments consist of three battalions of 3 batteries of 6 guns each or a total of 54 guns. In the north, the field guns outnumber the mountain guns, while the reverse obtains in mountainous provinces. Each battalion has a total strength of 568 men, officers and servants, of whom 378 are actual fighting men with 27 supernumeraries. The total strength of the regiment is 1,731.

The battalions of engineers, transports, etc., are practically the same as the infantry. Thus the Division when at full strength will consist as follows:—

Infantry	8072
Cavalry	1116
Artillery	1731
Engineers	671
Transport	748
Hospital Co	250
Balloon Section	50
Machine gun	130
Total	12,728

or in round numbers 12,500 men.

The regulations in force provide for three years' service with the colors, when the men pass into the first reserve, where they serve three years, being called out for drill one month each year. Then they pass to the second reserve for 4 years, being subject for drill one month in the second and fourth years each. This completes their military service of ten years.

Of course at the outset the proposed reserves of the Lu-Chun cannot be counted on in bringing the army up a war footing, and the Board of War has designated the regular provincial troops as the second line of defence. The Hsun-fang-tui is the name given to these forces, who are directly under the control of the provincial rulers, and constitute the police force or constabulary of the Provinces. While not always organized on modern lines, they are generally armed and equipped with modern rifles, accoutrements, and uniforms, and in some cases like Tientsin, Nanking, and the more important provincial capitals, they are modern drilled. They are organized into territorial districts called "lu" in each province. Each "lu" contains a certain number of "ying" or battalions of infantry or cavalry, divided into 3 "shao" or companies. In the infantry each company has 97 officers and men and each battalion 301. A cavalry company has 57 officers and men and the battalion 181. The number of these men in the various provinces is difficult to ascertain, but has been variously estimated as between 400,000 to 500,000. Until such time as the regular reserves of the Lu-Chun have been completed—10 years—these provincial forces will take this place in an emergency.

So on the completion of the new programme the strength of the army on a peace footing will be 450,000 men and officers, and 1,085,970 on a war basis. On a peace basis the unit is the Division of 12,500, but on a war basis it will be an army corps, consisting in addition to the regular divisions, of a reserve division, a reserve brigade, and three reserve battalions. Each of the 36 divisions is to be brought up to war strength in this manner.

This in brief is the general outline of the programme being followed at present, and while considerable progress has been made, the reforms

have been delayed and postponed by the governors and viceroys under various flimsy pretexts, the favorite one being lack of funds. As such large increase in expenditure must be provided from means of taxation, considered to be the personal perquisites of the governors, instead of falling in heartily with the scheme, many are pleading poverty and appealing to Peking for financial help. But those "higher up," having at some time or other filled the posts of provincial governor or viceroy, have a very good grasp on the real situation, and the Board of Finance has recently submitted a memorial to the effect that if the provincial revenues were honestly accounted for, and the contribution to Peking faithfully allotted, it would net an additional Taels 30,000,000 per annum to the Imperial Treasury. And so while in some urgent cases Peking has come to the rescue with funds, the Throne has admonished the viceroys and governors to get busy and bring their forces up to the required quota, under pain of severe penalty.

DISTRIBUTION OF DIVISIONS

The latest information as to the allotment of the new forces for each province and the progress of the same is as follows:—

CHIN-CHI (in the vicinity of Peking) there are to be four Divisions. Two of these are now completed.

CHIHLI PROVINCE, two Divisions—both are completed.

SHANTUNG PROVINCE, two Divisions—one is completed.

KIANGSU PROVINCE, two Divisions. The Division at Nanking has been completed, and Soochow has trained one brigade of infantry two companies of artillery, two companies of cavalry, and one company of engineers.

KIANG-PEI (Northern Kiangsu), one Division —of those one brigade of infantry, two battalions of artillery, and two squadrons of cavalry have been formed at Tsingkiangpu on the Grand Canal.

ANHUI PROVINCE, one Division—one brigade of infantry, one squadron of cavalry, one battalion of artillery, one company of engineers, and one company of transport have been formed.

KIANGSI PROVINCE, one Division—one brigade of infantry and two companies of cavalry have been formed.

HUNAN PROVINCE, one Division—one brigade of infantry has been formed.

HUPEI PROVINCE, two Divisions—one division and one mixed brigade have been formed.

HONAN PROVINCE, one Division. One brigade of infantry, two squadrons of cavalry, and two battalions of artillery have been formed.

CHEKIANG PROVINCE, one Division—one brigade of infantry has been formed.

FUKIEN PROVINCE, one Division—one brigade of infantry has been formed.

KWANTUNG PROVINCE, two Divisions—one mixed brigade has been formed.

KWANGSI PROVINCE, one Division—three battalions of infantry and one battalion of artillery have been formed.

YUNNAN PROVINCE, two Divisions—one brigade of infantry and two battalions of artillery have been formed.

KWEICHOW PROVINCE, one Division—one regiment of infantry has been formed.

SZECHUEN PROVINCE, three Divisions—one brigade of infantry has been organized.

SHANSI PROVINCE, one Division—one brigade of infantry has been organized.

SHENSI PROVINCE, one Division—one brigade of infantry and one battery of artillery have been organized.

KANSU PROVINCE, two Divisions—one brigade of infantry, two squadrons of cavalry, and two battalions of artillery have been organized.

HSIN CHIANG PROVINCE (New Dominion), one Division—one regiment of infantry, two squadrons of cavalry, and two battalions of artillery have been organized.

JEHOL (Chihli, outside Great Wall), one Division—one regiment of infantry and one squadron of cavalry, have been organized.

SHENGKING PROVINCE, one Division—one brigade has been trained and also one battalion of artillery.



THE LATE YANG SHIH HSIANG, VICEROY OF CHIHLI
AS COMMANDER-IN-CHIEF OF THE PEIYANG ARMY, ORGANIZED BY HIS PREDECESSOR YUAN SHIH-KAI

THREE ORIGINAL PHOTOS OF HIS EXCELLENCY, TUAN FANG, AS COMMANDER-IN-CHIEF OF THE NANYANG OR SOUTHERN ARMY. THE MIDDLE PHOTO SHOWS THE VICEROY AT HIS MOTHER'S GRAVE



KIRIN PROVINCE, one Division—one brigade of infantry has been trained.

HEILUNGCHIANG PROVINCE, one Division—no information as to new troops.

Here are also stationed in Manchuria (Shengking and Kirin Provinces) one complete division and two mixed brigades taken from the Lu Chun formerly organized in Chihli Province by the Viceroy Yuen-shih-kai.

According to the above estimate there are 7 complete divisions, 17 mixed brigades, 4 regiments, with 16 odd battalions of artillery, 14 cavalry squadrons, and three companies of engineers and transport now in existence, giving a total of about 180,000 men or 40% of the new programme. This is a good rate of progress for the first 3 years, and it seems entirely probable that the full 36 Divisions will be created in the next seven years as proposed by the Board of War.

The interest displayed by the Regent and his Imperial brothers and cousins in the new army, which points towards the awakening of a military spirit in the Rulers, is displayed by the Edicts of July last, which established the Military Advisory Board, with Princes Tsai Tao and Yu Lang as Presidents, and the appointment of Prince Tsai Fu to the command of the Imperial Guard Corps. The title of commander-in-Chief was prohibited to be used in future by Provincial authorities and generals, this honor being reserved exclusively for the Emperor, and during his minority by the Regent.

IMPERIAL GUARD CORPS

The new organization scheme, enacted recently, provides for the formation of an Imperial Guard Corps of 30,000 men or three Divisions. The



Prince Regent himself will be the Titular Commander and the soldiers are to be raised entirely from the youths of the eighth Banner Corps, selected for their physique and learning. This will be a pure Manchu body guard for the defense of the Palace. One division of 10,000 will be organized immediately and in three years the Corps will be brought up to its full strength. Graduates from the Nobles' College are being distributed to the various modern drilled divisions for six months' instruction preparatory to appointments as officers in this special corps.

Prince Tsai-fu, the second son of Prince Ching, who has just completed a tour around the world with Tang Shao-yi, has been appointed Commander-in-Chief of the Guard Corps, and Gen. Chiang Kuei-ti has been summoned to Peking to assume command of the first Division. When this Body Guard has been formed, the present Peking Gendarmerie will be abolished, and the new troops fill the functions also of policing the Capital.

ACTIVITY IN THE BORDER PROVINCES

As in Manchuria, with Russia and Japan, so with the French in Yunnan, China is having her hands full in preserving her authority, but Yunnan is almost inaccessible, so the world hears little of any trouble. Only occasionally news drifts through to the coast, which indicates the way the wind blows. The building of the French railway to Yunnanfu has so far been free from any unpleasant diplomatic incidents, but in view of the professed policy of France in building the Yunnan road, China is naturally suspicious of her actions, and is taking every means to safeguard her integrity. The creation of the two modern drilled army divisions for this remote province has received the urgent attention of the Central Govern-



ment, for only one brigade of infantry and two battalions of artillery have been organized. According to native reports, which are perhaps highly exaggerated, the French have distributed some 20,000 Annamites throughout Yunnan, many of them are engaged in the illicit trade of gun running. These men, while having every

appearance of belonging to the Indo-Chine army, are settling in the towns along the railway, adopting some trade or exploring the mountains in search of minerals. The Chinese frontier police and authorities are puzzled to account for the movement, and afraid to interfere pending definite instructions from Peking. Peking has already instructed the Viceroy to erect forts along the frontier, and has allowed the sum of Taels 2,000,000 from the central treasury towards defraying the expenses of organizing the new divisions. China has also served notice on the French Minister, that she will enlist her own guards for the protection of the Railway, and requested the withdrawal of the French guards from the Yunnan frontier. Now that the railway is completed to Yunnanfu, the question of guards will be raised, and unless China makes some resolute effort to protect the line in conformity with French demands, the Manchurian issue will be duplicated in the South.

The southern provinces of Yunnan and Kuangsi along the Tongkong border, are the favorite haunts of revolutionaries and secret anti-dynastic societies, whose activities are a source of great anxiety to the provincial authorities and the Central Government. The prevalent state of unrest in these districts is a constant menace to the relations between China and France, and a slight disturbance would readily give the latter country sufficient justification to take strong measures for the protection of her interests. The last incident



GEN. WANG TUNG-CHI,
DIVISION GENERAL, PEIYANG ARMY,
TIENTSIN.

in which Chinese troops invaded French territory in their pursuit of insurgents came very near costing the Empire another surrender of rights as indemnity for the wounded feelings of France.



HIS EXCELLENCY, CHU CHIA-PAO,
GOVERNOR OF ANHUI PROVINCE, COMMANDER-IN-CHIEF OF PROVINCIAL FORCES.

In Manchuria, the Hunghutzes, or "red beard" bandits, afford an ever ready pretext for Russia or Japan to increase their troops for the protection of their interests, and these revolutionaries in the south are a like convenience to France. The failure of the Chinese Government to quell these bands may some day cost her dear, for at any time Russia, Japan, or France can conveniently justify a "vigorous policy" towards China, through her inability to guarantee protection. And this in spite of all existing treaties and compromises to respect her integrity. It is difficult to see how other disinterested friendly nations could interpose any effective protest, against such terms as might be imposed on China, as a result of such intervention in her affairs. Herein lies one of the greatest dangers to the preservation of China's integrity.

That her high officials are keenly alive to this contingency is evidenced by the appropriation of funds from Peking for the Yunnan Army, and the peremptory orders to the Governor of Kuangsi to form at once his quota of the new forces, and similar urgent instructions to all the border authorities. The Kirin government has been permitted to appropriate Taels 150,000 out of the Imperial Salt Revenue towards the expense of the division allotted to it, and is given one year to complete the organzation.

Russia has been reinforcing the troops in the border city of Kiackta, ignoring the protest from Peking through the authorities at Urga. At the same time she has also adopted a new plan for the extension of her military system in Northern Manchuria, which embraces the organization of an army corps of 25,000 troops with general headquarters at Harbin, where a Cossack regiment and three companies of artillery will be permanently located as railway guards.

To the activity of Russia towards regaining her lost ground, commencing with the appropriation of funds for the construction of the Amur Railway, can be directly traced the attitude of Japan in forcing China's hand in the Antung-Mukden Railway, and the concession for the Kirin extension to Hanchun.

According to the new organization scheme, the greatest attention is being directed towards building up a large effective force in these



GENERAL WONG HUI CHENG,
COMMANDER OF THE MUKDEN TROOPS.



GEN. KSU KOU-CHUN,
BRIGADE COMMANDER, PEIYANG ARMY, TIENSIN



COL. TIEN TSUNG YU,
CHIEF OF STAFF TO THE VICEROY OF CHILI (PEIYANG ARMY).



GEN. TUAN CHIH-KUEI,
FOR SOME TIME CHIEF OF THE TIENTSIN MODERN POLICE, IMPEACHED FOR RECEIVING GOVERNORSHIP OF HEILUNGKIANG BY BRIBE.

border provinces. Of the 36 proposed Divisions, Yunnan will furnish 2, Szechuen 3, Kansu 2, and the New Dominion one. All of these districts are in remote sections of the Empire, rarely visited by Europeans and according to such reports as reach us from occasional travellers, the military propaganda is being actively carried out. Dr. W. Edgar Geil, who explored

were only ten to fifteen men, but it all appeared to be part of a concentrated plan, the precise object of which the people themselves appeared ignorant. Dr. Geil's personal opinion is that it was all part of a general plan to prepare secretly an enormous Army. The results of Dr. Geil's trip, and his observations about the military preparations in Kansu were published in the

Peking on the 27th of April, that the Waiwupu had requested the Foreign Ministers to forbid missionaries penetrating into the frontier provinces, as the people were in a crude state of civilization and the presence of foreigners might give rise to trouble. This solicitation for the welfare of the missionaries is in somewhat striking contrast to the ordinary attitude at Peking



COLONEL AND OFFICERS OF ONE OF THE CHEKIANG REGIMENTS OF THE LU-CHUN.

the whole length of the Great Wall, was deeply impressed with the fact that all over the country, even in the remotest villages, he found groups of young men drilling. In some cases there

early part of last April, appearing in the *North China Daily News* of the 21st of the month. It is a remarkable coincidence that, immediately following its publication, the news came from

over their safety. As other foreign travellers have to be provided with passports to travel outside certain limits, it was well within the power of the government to prevent their



VICEROY TUAN FANG, IN WINTER ROBES



H. E. TIEH LIANG,
PRESIDENT OF THE ARMY BOARD, ETC.



H. E. CH'ENG HSUN,
MILITARY LIEUTENANT GOVERNOR OF KIRIN, FORMER TARTAR GENERAL OF NANKING AND CANTON, GOVERNOR OF ANHUI, ETC.

penetrating into remote regions, but it is different with missionaries, who have larger liberties of action under treaties. The incident points to the fact that the publication of Dr. Geil's observations and personal conclusions were not relished by the Board of War. Greater weight was given to the matter almost immediately afterwards. In May, His Excellency Tieh Liang, the President of the Board of War, proposed to the Regent his transfer to the Viceroyalty of the Shenkan, with the avowed purpose of personally training the Kansu troops, and when this request was refused by the Regent, he suggested an inspection trip into Mongolia, Kansu, and Tibet, taking with him two battalions from the 1st Division of the Lu-Chun as escort.

These facts forcibly illustrate the keen interest displayed by Peking to safeguard her frontiers. The activity of the Russians on all sides of Mongolia, the New Dominion, and Chinese Turkestan, and the periodical insurrections on the borders, have alarmed Peking, and strenuous



GEN. MA LUNG-PIAN,
CHIHLI ARMY.

efforts are being put forth to create an army for defense. Some of the Border authorities have ignored the repeated commands of the Central Government to carry out their allotted share in the new army scheme, and under the pretext of insufficient funds have not made rapid headway, despite the urgency of the situation. The Throne has admonished them again and again that they must raise the funds, and, if they fail to comply within a prescribed time they will be severely dealt with.

In Szechuen, only one brigade of infantry of the Lu Chun has been organized and equipped, where their quota calls for six. In Kansu, which is expected to provide two Divisions, there is one Brigade of Infantry, two squadrons of cavalry and two battalions of artillery already in active service, though it is clear that this force is being rapidly augmented. Hsin Chiang Province or the New Dominion, is allotted one division, but to date only one regiment of infantry, two squadrons of cavalry, and two battalions of artillery are in evidence.

MONGOLIA

Mongolia does not enter into the new organization scheme, but the issues at stake there loom large on the political horizon, and steps are being taken to strengthen the hold of China on this agglomeration of independent tribes, and cement their adherence to the dynasty. Mongol Princes are in high favor at Court, and the Regent is appointing them to important offices. One of the principal Mongolian chieftains, the Prince of Turgut, recently completed a military schooling in Japan, and on his return to Peking in May organized a Mongolian Society with the powerful Prince Na, the Dzassak of the Khalka tribe, as president, for the purpose of promoting reforms in Mongolia. The Prince of Turgut believes that the very existence of his country is threatened by Russia, and only a united front can save it from ultimate absorption. The Regent heartily indorses these views and intends to appoint him to train the armies in Western Mongolia when he returns to his dominions, in the meanwhile appointing him to duty at the Palace. The Mongol Prince of Kharach'in has also been honored with the right of Imperial entree, and other lesser chieftains have received marks of the Regent's favor.



LT. GEN. CHIANG KUEI-TI,

ONE OF CHINA'S FOREMOST GENERALS. COMMANDED GARRISON AT PORT ARTHUR DURING CHINO-JAPANESE WAR. IT ISCLAIMEDTHAT THE UNSEXING OF JAPANESE PRISONERS BY HIS ORDERS CAUSED THE TERRIBLE REPRISALS ON THE CAPTURE OF THE STRONGHOLD BY THE LATTER. IN COMMAND OF YUAN SHIH-KAI'S TROOPS AT PEKING IN 1901. COMMANDER-IN-CHIEF OF THE KANSU ARMY. NOW ON SPECIAL SERVICE IN PEKING IN COMMAND OF IMPERIAL GUARD CORPS.

In fact the important questions involving the defense of the dependencies are receiving a large share of the government's immediate attention. Thibet, Mongolia, Hsin Chiang, and Manchuria are being rapidly colonized and becoming more Chinese than ever. Enormous numbers of emigrants are annually finding new homes in these lands hitherto given over to the wild tribes of the borders. Even into Tibet and the Ordes steppes the colonization is being pushed. Active government aid is extended to those desirous of settling in Manhuria and the extreme northern provinces are c



GEN. YU CHANG CHING,

NANKING.

thus being brought under cultivation. A traveller, recently returned from an extended visit through Mongolia, affirms that an army of nearly 40,000 armed with modern rifles, and drilled by Japanese instructors, has been placed



COLONEL SHENG,

DIRECTOR OF NANKING MILITARY SCHOOL

during the last two years in Urumtchi in Hsin Chiang or Chinese Turkestan, and the old frontier ports of Kuldja and Bulomtokhoi in Tarbagatai have been greatly strengthened . These figures must be greatly exaggerated. In Kobdo and Uliasseitai, where Russian influence is strongest in Mongolia, the activity of the Chinese government has alarmed the Russian authorities, as troops are being organized and drilled by a Chinese officer educated by German instructors. In Eastern Mongolia there are also several large camps of Chinese troops. This activity is directed not only against Russian aggression, but also against the independent Mongolian Princes, who frequently borrow large sums from Russian agents, placing themselves in their power politically. The feverish anxiety of the government to prolong the Kalgan road to Kiakhta, and establish an automobile service temporarily, has not only the object of discomfiting Japan by a quicker service to Europe, but also to preserve the country from the Russians, and tighten its hold on the Mongol princes.



LT. GEN. MA YU-KU'N,

COMMANDER-IN-CHIEF OF THE CHIHLI FORCES FROM 1900 TO TIME OF HIS DEATH, SEPTEMBER 1908. JUNIOR GUARDIAN OF THE HEIR APPARENT, ETC.

It is proposed to make Hsining, Altaishan, Chahar, Kobdo, Ili, and Urga, division headquarters and concentrate troops at these points, but the difficulty of securing competent officers willing to serve in these outports has retarded the scheme. The military Governor of Ili has been instructed to proceed with the training of the modern force in his district, with financial assistance from the throne, as it is in this district that Russian aggression is most to be feared. Wireless telegraphy will be installed in Mongolia and Chinese Turkestan in connection with the land wires in Kansu, for the more rapid and economical means of intercourse with these distant districts. It is also proposed to recruit and train a regiment of Tibetan Lamas along modern lines and competent officials are to be sent out for the purpose. As the Lamas have demonstrated good fighting qualities, it is believed they will make a decided addition to China's fighting force.



GEN. FEN CH'E OF THE BORDERED WHITE MONGOL BANNER CORPS



LIEUTENANT GENERAL TSENG-CHI, OF THE MONGOL PLAIN YELLOW BANNER CORPS; TARTAR GENERAL AT CANTON, ETC.



LT. GEN. CHANG TE-YI, OF THE BORDERED BLUE MONGOL BANNER CORPS; MINISTER TO GREAT BRITAIN, ITALY AND BELGIUM IN 1901

CAVALRY HORSES

Each of the 36 divisions of the Lu Chun is to have one cavalry regiment of 116 mounts, or a total of 44,000 horses for the entire army, including general officers and staff. The supply of this large number of serviceable war horses of sufficient height and strength has led to the establishment of a stud farm in the north, and plans for one in the South. The farm for the North is located near Hsin-mun-fu, where scientific breeding is carried on to improve on the wild China pony of the Mongolian steppes. The Chinese, unlike the Japanese, are excellent horsemen, and even with the undersized Mongolian pony they make good cavalrymen.

MILITARY SCHOOLS

Under the central direction of Gen. Tuan Chi-jui, three military academies now exist in China, at Tientsin, Wuchang, and Nanking, and there is one to be built at Taiyuanfu in Shensi. Elementary and middle schools are to be established in all provinces. The school at Peking will be the central or Staff College, where special courses for the different arms of the service can be taken by the provincial graduates. The students for this college will be selected by competition examination by a special commissioner, and after graduation are to receive direct appointments from the Throne. The regulations and curriculum have been approved and communicated to the provincial authorities. Special attention is given to the young nobles, who are expected to fill the higher grades of the new army, and strict examinations are already being held so they will attain a certain high standard. Many sons of Viceroys and other distinguished families have been ordered by the Regent to attend the Nobles' College and learn things to prepare them for future responsibility, instead of wasting their days and fortunes in the pursuit of pleasure in Peking. Foreign military instructors, principally Japanese and Germans, are to be found in all the established schools, and while the German drill system is almost exclusively employed the organization and routine is distinctly Japanese.



A GROUP OF CHINA'S OLD FIGHTING CHIEFS

RIGHT TO LEFT: LT. GEN. CHIANG KUEI-TI (SEE PREVIOUS PAGE); H. E. HU JUN-MEI, LATE GOVERNOR OF PEKING (SEE NOTE); GEN. CH'O HA-PU, TARTAR GENERAL AT CHENGTUFU, SZECHUAN PROVINCE; LT. GEN. HSIU-CHI OF THE PLAIN YELLOW MANCHU BANNER CORPS; THE LATE LT. GEN. MA YU-KUN: H. E. SUNG SHOU, VICEROY OF THE MIN-CHE (FOOCHOW), FORMERLY PRESIDENT OF THE WAR BOARD, TARTAR GENERAL, ETC.



THE CHINESE ARMY MANEUVRES IN ANHUI.—THE VICEROY TUAN FANG CONSULTING WITH GEN. HSU

A number of students are being sent annually abroad for military study. Last year 15 selected youths were dispatched to France for six years' study. The school facilities are provided free by the French Government, and their expenses defrayed by the Chinese Board of War. These latter amount to about gold $400 per year. A batch of 15 graduates from the French Academy at La Fleche have returned to China, and are doing good work. Similar detachments are to be sent annually to France for study, and some to Germany. Two students recently graduated from the American West Point academy, with a high standing in their class, and are now in Germany completing their studies. According to a list compiled by the Chinese Y.M.C.A. in Tokyo there were 1,000 Chinese students in the military schools of Japan in 1908, besides a large number actually with the Japanese army.

The proposed preparatory provincial schools, 26 in number, will be responsible for general elementary instruction, and after a three years' course, the pupils pass to the academies for final development into officers. The course will consist of two years' theoretical and four months' practical training, with a supplementary course of 18 months in the war college. On graduation the students are commissioned as lieutenants, and after two years' active service, the best talent is selected for the course at the Central Staff College at Peking for special and advanced courses. Staff appointments and higher positions in the army will only be open to those who have successfully graduated from the Staff College.

Up to date only a few of the preparatory schools and three of the academies exist. In some provinces attention has also been given to special schools for medical and veterinary work. Topographical work has been managed with excellent results by special instruction in nearly all provinces, and the country is being remapped and surveyed by the military

THE BANNERS

The organization and equipment of the Lu Chun will be accelerated, if the proposed abolition of the Banner Corps is carried into effect. This much needed reform has been discussed, and certain initial moves recommended, such as forcing the Bannermen to adopt commerce, agriculture, and industry. The eight Banner Corps, or special Manchu Army, are composed of the descendants of the Manchu, Mongol, and Chinese armies which overturned the Ming rulers and conquered the country for the present dynasty. These corps are designated as the Bordered Yellow, Plain Yellow, Plain White, Bordered White, Plain Red, Bordered Red, Plain Blue, and Bordered Blue Banner Corps. In these divisions all descendants of the original Manchu, Mongol, and Chinese conquerors are enrolled. The entire population of Peking and Manchu colonies in other parts of the Empire belong to this force, which is organized into brigades, regiments, etc., with officers ranking from Lieutenant General downwards. All the officers and three grades



GENERAL YIN-CHANG AND STAFF AT THE ANHUI MANEUVRE. GENERAL YIN IS NOW MINISTER TO GERMANY

THE MANEUVERS IN ANHUI



A BATTERY IN ACTION.



ADVANCE ACROSS PADDY FIELDS.



THE HOSPITAL CORPS



THE FLOATING BAMBOO POLE BRIDGE.

THE ANHUI MANEUVERS



THE BALLOON SECTION AND ASCENSION.



THE BALLOON BRIGADE & ASCENSION.



INFANTRY HOLDING A HILL.

THE ANHUI MANEUVERS



THE MAXIM BATTERY AT WORK

of privates receive actual pay, especially those detailed for service in the old Manchu Imperial Guards Division, and other forces detailed for the defence of Peking and its approaches, or the policing of Imperial pleasure grounds, palaces and mausoleums. The new Imperial Guards are to be selected from the old organization. In nearly all the provinces there are Manchu garrisons, but without organization or efficiency and utterly incompetent to cope with any anti-dynastic movement. The new Lu Chun under direct control of Peking, loyal to the Throne, will in the very nature of things gradually displace or absorb the obsolete provincial Banner organizations. Many of the provincial bannermen will join the new army, and constitute a safeguard against mutiny. The post of Tartar General, or Military Governor in command of the provincial banner divisions, is a check on the Chinese Viceroy or Governor, and while he has no authority in administrative affairs, he ranks above the Viceroy or Governor. The Central Government is considering the abolition of this post, and placing the Bannermen under the jurisdiction of the regular authorities.



H. I. H. PRINCE PULUN, VICEROY TUAN FANG, AND ADMIRAL SA

FINANCES

The actual working out of the new scheme in the allotted period of ten years, of which three have transpired, hinges on the all-absorbing question of finance. The central government will maintain out of the Imperial Treasury, the Board of War, General Staff, military academies and arsenals, and also six divisions in the metropolitan provinces, in addition to the Guard Corps. It has been estimated that the entire budget will total Taels 90,000,000, of which Taels 25,000,000 is necessary for uniforms and equipment, and a similar sum for arsenals. Deducting the 6 divisions under the Board of War it leaves 30 divisions to be provided for by the provinces, or an expenditure of say Taels 2,000,000 to a division. The recent Governor of Shantung, which province is allotted one division, reported to Peking that his military expenses amounted to Taels 1,577,000, of which he could only raise Taels 1,200,000 in the province, and petitioned that the Central Treasury make up the deficit. The native press state, however, that when Viceroy Yang died at Tientsin, the Governor of Shantung, anticipating his demise, dispatched his son to Peking with huge sums of money to "influence" his appointment to the post. Governor Yang got the Viceregal "promotion" to Canton instead of Chihli. When one stops to consider that the Taotaiship of a good circuit is reported by the Chinese to be worth from Taels 50,000 to Taels 300,000 as in the case of Shanghai—which post Viceroy Yuan held for some years—an approximate idea of the value attached to a viceregal appointment may be gathered. And when a shortage of Taels 300,000, to equip an army division is reported by a governor, as a reason for his failure to carry out his share of the scheme, the virtuous indignation of the Regent and his refusal to accept the excuse and advance the Imperial funds is undoubtedly justified. Either the governors must toe the financial mark, and set up their soldiers, or the Regent will eventually take their official scalps, as he has many times threatened to do.



INFANTRY WAITING TO ADVANCE



THE WAR BALLOON



CHINESE TROOPS ON TRAIN



ARTILLERY ON TRAIN



A REVIEW AT TIENTSIN



MACHINE GUN SECTION AT ANHUI MANEUVERS



IN COMMAND OF THE HONAN TROOPS



LIEUTENANT GENERAL TO-WEN,

A MEMBER OF THE IMPERIAL CLAN AND MILITARY LIEUTENANT GOVERNOR OF SHENKING PROVINCE (MUKDEN) IN COMMAND OF THE MANCHURIAN ARMY



THE HONAN GENERAL IN SERVICE UNIFORM



AN ORDERLY



OFFICERS OF THE MANCHURIAN FOREIGN DRILLED ARMY



MAXIM BATTERY AT NANKING



PARADE GROUND AND BARRACKS AT FOOCHOOW.

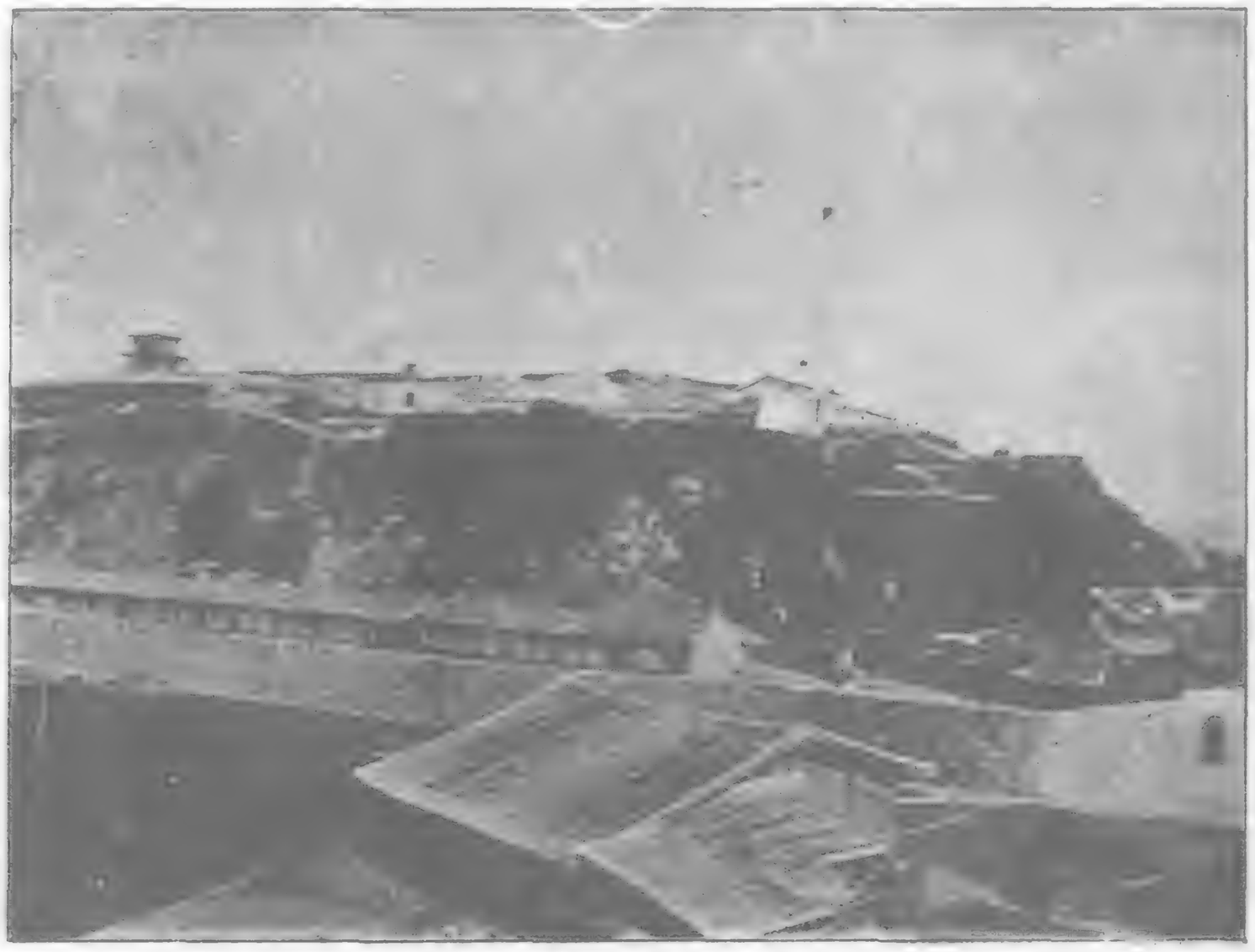
At any rate, the Regent apparently has no intention of spending the Imperial Treasure for this part of the scheme, however willing he may be to assume some share in the naval expense, alluded to in the last issue of the FAR EASTERN REVIEW.

Great advances have been made in production of small arms. In 1907 the arsenals and small arms factories in Wuchang, Te Chou, Canton, Shanghai, Chengtu, and Kaifeng Fu, began the manufacture of single-loading and magazine small arms. These factories can turn out a maximum of 50,000 rifles a year. In the production of guns, China's capacity is still smaller. The new scheme aims at equipping each division with 54 guns (36 field, 18 mountain). At present, however, the arsenals can produce no more than 50 mountain guns. The Government proposes to abolish provincial arsenals, and to establish instead, three large ones, situated in the north, center and south. Of these only the Hanyang arsenal exists.

A third difficulty lies in this—that while on paper the control of the Lu Chun or National Army seems complete, in practice it can hardly be considered so, since while provinces are responsible for the support of provincial quotas, the Central Government has little control over provincial finances. These are controlled by viceroys and governors. It would seem, then, that the success of the new schemes will to a great extent depend either on large loans or on a thorough reform of China's financial system. The former are not likely to be readily forthcoming; the latter is a problem to which no solution has been found.



FORTIFICATIONS ON MIN RIVER.—APPROACHES TO FOOCHOW.



MIN RIVER FORTS.

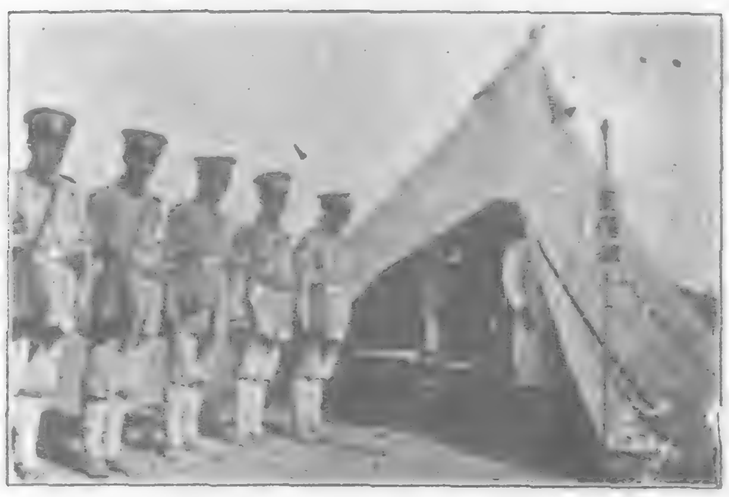
75TH ANNIVERSARY

The *Mining Journal's 75th Anniversary Number*. A copy of this interesting number, issued in celebration of the completion of three-quarters of a century of activity in the interests of the mining industry, has reached our desk, and we congratulate the publishers on its splendid typographical appearance and wealth of information. Its 103 pages are profusely illustrated and the special articles cover the mining industries of South Africa, Australia, Malaya with a generous review of the tin mining industry together with many features that make the number a most valuable reference to mining men the world over. In it is reproduced a sheet from the first number published in 1835. The *Mining Journal* is one of the most important international mining publications in the world and is always to the fore in all matters appertaining to this most important industry.





TYPES OF FOOCHOW SOLDIERY



ORDERLIES



CHINESE CAVALRY TYPES



H. E. P'U-SHOU,
TARTAR GENERAL, FOOCHOW



BARRACKS AND WATER BATTERIES ON MIN RIVER

THE BOXER GENERALS



H. I. H. PRINCE PU CHUN,

SON OF PRINCE TUAN, APPOINTED HEIR APPARENT, BUT DISINHERITED IN 1901 WITH RANK OF DUKE. HAS NOT BEEN HEARD OF MUCH IN SEVERAL YEARS



PRINCE TUAN (TSAI-YI)

THE BOXER PRINCE, SENTENCED TO DEATH BY THE IMPERIAL CLAN COURT FOR HIS ACTIONS IN 1900, BUT COMMUTED TO EXILE TO THE NEW DOMINION, WHERE HE NOW RESIDES WITH THE PRINCE OF THE ALA TRIBE OF MONGOLS



GEN. NIEH SHIH-CHENG



LT. GEN. TUNG FU-HSIANG,

THE RABID MOHAMMEDAN LEADER OF THE BOXERS WHOSE MEN WERE INCESSANT IN THEIR FIRE ON THE LEGATIONS. DEGRADED AND EXILED TO KANSUH, WHERE HE DIED IN 1908.



SON OF GENERAL NIEH



GEN. LIU YUNG-FU,

THE LEADER OF THE "BLACK FLAGS." DISTINGUISHED HIMSELF IN FORMOSA FIGHTING THE JAPANESE. DIVISION GENERAL, RETIRED 1906

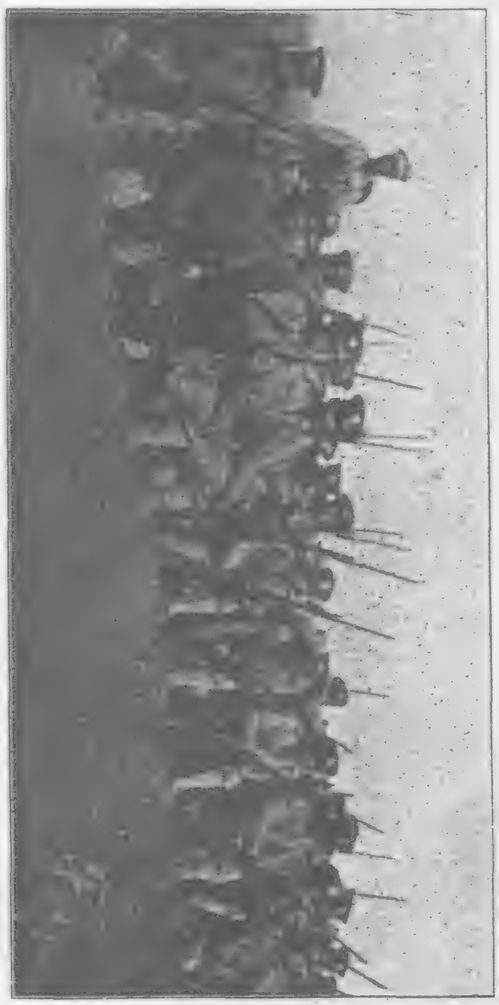


GEN. SUNG CHIN,

OF THE PEIYANG FORCES, WHO JOINED THE BOXERS



TIENTSIN MILITARY POLICE



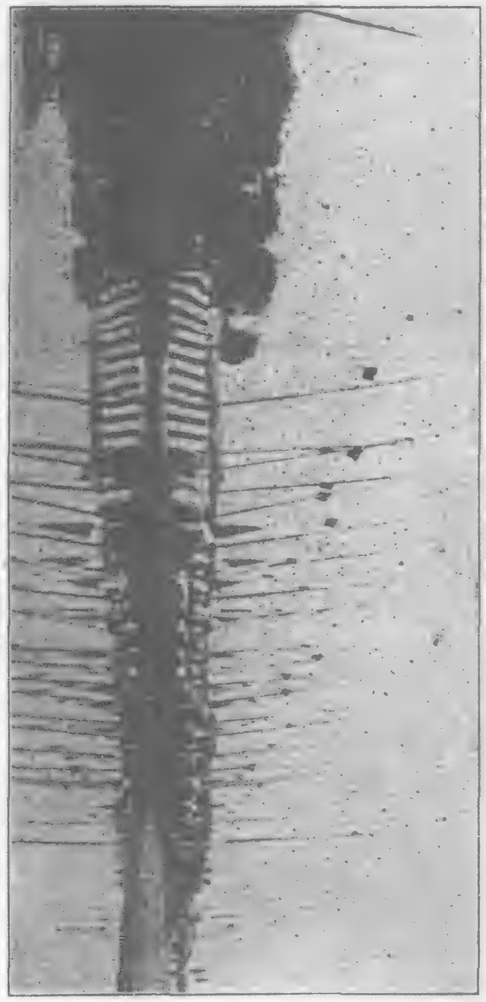
MODERN DRILLED SOLDIERS OF THE MANCHURIAN ARMY



GENERAL FENG, CHILI DIVISION COMMANDER, MOUNTED



GUNBOATS ON THE YANGTSZE



*THE PHILIPPINES AND AMERICAN OPPORTUNITIES FOR TRADE EXPANSION

The United States is importing annually between five and six hundred million dollars worth of tropical and sub-tropical products, and the demand for such products in this country is steadily increasing. Included in these imports are cacao, coffee, fibres, fruits, vegetable oils, rubber, silk, spices, sugar, tobacco, cabinet woods, gums and a variety of lesser articles. The most unprofitable trade that the United States has in its foreign dealings is with the countries from which these goods are purchased, where the balance of trade against us each year may be summarized as follows:

Brazil, seventy to eighty million dollars.
Cuba, forty to fifty million dollars.
India, forty to fifty million dollars.
Java, twelve to twenty million dollars.
Japan, thirty million dollars.
Mexico, ten to fifteen million dollars.



THRASHING RICE WITH AMERICAN MACHINERY, GOVERNMENT RICH FARM, MURCIA

Bolivia, Peru, Ecuador and Chili, six million dollars.
Colombia, three million dollars.
Venezuela, three million dollars.
Straits Settlements, sixteen million dollars.
Ceylon, four million dollars.

This shows an aggregate annual balance of trade against the United States ranging from $234,000,000 to $277,000,000 dollars. And these countries are selling us nothing that cannot be produced in the Philippine Islands, to where, if unqualified free trade is established with the home country, the hundreds of millions of money now flowing from this country for investment in Mexico, Cuba, Central and South America will be diverted, and create industries or extend them in our own territory, thus tending to make the United States independent of foreign sources of supply for its tropical products, from which sources it now receives such small compensating trade in return.

Most of the money we pay for Cuban sugar, tobacco and hard woods is spent in Europe, and nearly all of the tremendous amount we pay Brazil for coffee and rubber goes to purchase British and continental European goods.

In marked contrast to this showing is the commerce maintained with tropical countries by Great Britain and Germany. In 1906 the former sold Brazil over $45,000,000 worth, two and one-half times what we did, while her purchases from Brazil were less than half what ours were. In 1907 British exports to Brazil increased to upward of $59,000,000, while those islands took but $42,000,000 from Brazil. The case with Germany is not as striking, yet that country buys from Brazil only half what we do and sells there $10,000,000 more than the United States.

We import more of Brazilian products each year than do the United Kingdom and Germany combined, but we sell only one-fourth as much of our own products to Brazil.

In 1906 the United States purchased $88,000,000 of Cuban products and sold Cuba $47,500,000 of its own, showing a balance against us of $40,500,000. In 1907 this balance increased to more than $48,000,000. In 1906 Germany sold to Cuba $6,400,000 and bought there but half as much, while in 1907 German trade increased to more than $7,500,000 and Germany took but $3,200,000 of Cuban products in return.

Spain sold there over $9,000,000 worth in 1906, and bought less than $700,000 of Cuba's products, while in 1907 Spanish trade in Cuba increased by half a million over the preceding year, and imports of Cuban products into Spain dropped to less than half a million dollars in total. France sold $5,500,000 worth of goods to Cuba in 1906, which amount she increased to more than $6,000,000, in 1907, although buying less than $1,500,000 of Cuban products in return. Great Britain sold Cuba $14,000,000 in 1906 and nearly $15,500,000 in 1907, taking from Cuba but $6,000,000 of the products of that island in the first year and only $4,500,000 in 1907. The following, taken from a publication by the Bureau of Manufactures, Washington, on the trade of Cuba for 1907, is significant: "It is known that the increase on the part of the United States (for 1907) is largely due to machinery, construction material and provisions, while that of Germany and Great Britain probably represents more closely the augmentation of the natural market, the demand from these countries for machinery and construction material used in Cuban improvements not being great. Taking it all in all the gain of Germany and Great Britain is the most significant in the comparison, and must, to some extent, represent increased activity in seeking the Cuban market."

The imports into the United States from British India for the fiscal years 1906, 1907 and 1908 respectively, were, expressed in dollars, $46,700,000, $59,000,000 and $44,500,000. Our exports to that country for the same years were, in round numbers, $6,400,000, $7,300,000 and $9,200,000. Ordinarily the balance of trade against us in our commerce with British India exceeds 40 millions a year and from that up to 50 millions.

Java furnishes an illustration of special importance with respect to our foreign trade that is ill-balanced for the reason that the importations from that island are principally of sugar, and it is the producers of beet sugar in the United States, who most strenuously oppose the free admission of Philippine products into this country because of the fact that sugar is produced in those islands. Our purchase of Javanese sugar amount in value to from eleven to twenty million dollars each year, and Java

*By Harold M. Pitt, special representative in the United States for the Manila Merchants' Association, and includes excerpts from Presentation Made before the National Association of Manufacturers and the Ways and Means Committee of the Chicago Association of Commerce.

takes of our products from one to two millions. We buy much more from Java than Great Britain and the Netherland combined, but those countries supply the manufactured goods that are consumed there, our contribution to the imports being insignificant.

The balance of trade against us in our commerce with Japan amounts to $30,000,000 or more annually. The exports from the United States to Japan in 1908 amounted in value to a little more than $33,500,000 as compared with $41,000,000 in 1907. The imports from Japan in 1908 were slightly under $64,000,000 as against $71,750,000 in 1907. The United States takes 30 per cent of all of Japan's exports, the largest in value of any country, but exports to Japan are much less than from the United Kingdom, and they have decreased in five years from 17 to 16 per cent of her total imports. Japan imported from Great Britain 22 per cent of her total imports in 1907, although that country took only one-sixth in value as much of Japanese exports as did the United States. Germany's exports to Japan increased 100 per cent in five years; exports from the United States to Japan showed a falling off; we are Japan's best customer.

It is estimated that there is from $750,000,000 to $800,000,0000 of American capital invested in the mines, railroads, agriculture and other forms of industry in Mexico, and with the natural tendency such large interests would have in diverting trade to this country for machinery, implements and general equipment, it is only reasonable that a large share of Mexico's purchases should be made here; and yet we buy from our neighboring republic over $10,500,000 more each year than we sell there. These are our own figures for it. Mexican customs returns make the balance against us in excess of $15,000,000.

The Pacific coast republics of South America, viz: Bolivia, Peru, Ecuador and Chili bought from us in 1907, $21,702,000 and sold to the United States $27,878,000, netting a balance against this country of $7,000,000. Colombia sold to the United States in 1907 $6,466,429 and took of our goods but $3,169,382, which creates a three and one-third million dollar balance. Venezuela sold us $5,753,782 of her products in 1907, and took but $2,500,000 in value of our products, a further balance of $3,250,000.

In 1907 the United States imported goods from the Straits Settlements (Singapore and Penang) to the amount of $17,756,473 in value and sold there $2,068,379, representing a balance in their favor more than 15¾ millions. Even the island of Ceylon rolls up a balance of trade against the United States of close to $4,000,000, marketing with us in 1907 $4,176,049 of its products and taking but $333,135 of ours in return. The imports into all of these countries are made up for the most part of three principal groups of commodities, viz: cotton and



FOUNDERS OF THE DAVAO PLANTERS' ASSOCIATION

cotton manufactures; iron and steel with their manufactures and foodstuffs. Cotton goods make up about 30 per cent of the imports of tropical countries and is by far the most important item on the list. The relative proportion of foodstuffs, and the manufactures of iron and steel varies with local conditions, but together they amount to nearly 50 per cent of the total.

With the many advantages enjoyed by the United States in the production of such articles, it would seem that we should be able to meet successfully in the world's markets Great Britain and Germany, which are the most powerful competitors for that commerce. But even where national sentiment and points of proximity and mutual interest are in our favor, we do not appear able to secure even a reasonable minor share of the trade in lines that we should, according to all ordinary rules, control.

But that we are not predominant in this trade is due to several very large and obvious facts. The American manufacturer has been so completely occupied with the work of supplying the home market, which is vastly more profitable than the foreign, that he has had no time to cultivate the markets of other countries. This nation has been developing with such great rapidity that the energy of its business elements has been taxed to full capacity in providing the requirements of its home field, and only during periods of acute financial or economic depression has thought been given to foreign trade. And it is probable that this condition will not change to any material extent for many years to come. Further than this, our protective system, with its consequent tendency to increase the cost of production through the necessity of a wage scale in keeping with a much higher cost of living, renders it difficult to compete with the cheaper labor nations of Europe, where the standard of living is lower and the home market of proportionately less value to the manufacturer. This has made an export market of relatively greater importance to the European manufacturer, and the competition for such markets, which has developed principally in tropical and sub-tropical countries, has waxed very keen especially between Germany and Great Britain.

Belgium, France, Switzerland, Austria and Italy are able to compete in specialized articles on a satisfactory basis, and the United States produces certain manufactured articles including agricultural implements, sewing machines, typewriters, mining and electrical machinery, etc., in which the mechanical genius of our people has entered to an extent that it places us beyond the reach of European competition for those articles in international markets. But in the commodities that constitute the great bulk of the world's commerce, we are easily distanced by Germany and Great Britain.

There are other reasons than those mentioned why this is so. The European manufacturer has made a careful study of the markets of the world, and has conformed to their requirements in every particular. The tastes of the people; their methods of doing business; details of packing, where climate requires other than the ordinary package or transportation facilities make it necessary; the current fiscal system; language and every other point that might have a bearing or influence on trade is taken into account. On our side the American exporter follows an inflexible rule in matters of credits, packing and shipping, with the result that he does not always hold business when he gets it, even though his goods may be preferred as they often are.

Thus we pay to Brazil each year of coffee, cocoa and rubber from $70,000,000 to $80,000,000 above what Brazil pays us for what we sell there; to Cuba an excess of from $40,000,000 to $50,000,000 for sugar, tobacco and hard woods; to British India for jute, tea and minor articles, from $40,000,000 to $50,000,000; to Java for sugar from $11,000,000 to $20,000,000; to Japan for matting, tea and silk about $30,000,000; to Mexico for tobacco, coffee, rubber, etc., from $10,000,000 to $15,000,000 and Ceylon



REAPER AND BINDER FOR HARVESTING RICE

$4,000,000. These figures represent the actual balance of trade against the United States each year in its commerce with the countries named, which ranges in the aggregate from $229,000,000 to $274,000,000. And all of those countries purchase most of the manufactured goods they consume in the cheaper labor countries of Europe, paying therefore with the money we exchange for their products.

The industrial structure of the United States has been built up under a protective system which involves a considerably higher labor cost than that of Europe. This raises the standard of living, but naturally increases the cost of production. It is not probable that this system, as such, will be changed for many years to come if ever. Under it, competition with cheaper labor countries for foreign trade in manufactured articles, where labor enters as a material factor of production, is naturally difficult, where not impossible. It is obvious, then, that in order to obtain a compensating trade for such tropical products as we import, that have become necessities under our standards of living, the protection of our own tariff laws must be made to secure us from European or other competition in exchanging our manufactures and the foodstuffs peculiar to temperate zones, for those products.

The Philippines can be made to produce a large part of all these imports, and for every dollar's worth of such products that the United States obtains there it will sell in return a dollar's worth of its own.

Look at Porto Rico. In 1907 the United States sold in that island nearly $26,000,000 worth of merchandise. It purchased from Porto Rico in the same year $22,000,000 worth, in the list of which there were no articles that it would not have been obliged to buy from other countries had they not been obtained in Porto Rico and, in that case, without receiving a compensating trade in return.

Free trade with the United States, which was naturally followed by the investment in Porto Rico of American capital, with which the Island's industries are being developed, has created a new market for $25,000,000 worth of American products each year, and the limit has by no means been reached.

Porto Rico became a possession of the United States in the same year as the Philippines. Free trade between the island and the homeland went into effect July 1, 1901. For the year immediately preceding, that is, the year ending June 30, 1901, the external commerce of the island was $17,950,197. This was about the normal trade in Spanish times. After six years of free trade with the United States, it had increased from less than eighteen millions to $56,253,472. And this growth has been of as much benefit to the United States as to Porto Rico.

Porto Rico has an area of 3,435 square miles and a population of 1,000,000. The Philippines have a population of 8,000,000 and an area of between 115,000 and 120,000 square miles—thirty four times the area and eight times the population of Porto Rico. When it is considered that the Philippines have four and one-half times the per capita area of Porto Rico; a much greater diversity of natural products in one of which, Manila hemp, they hold the world's monopoly; boundless forests containing many of the finest hard woods known, and a great wealth in coal, iron, copper and gold, it requires no stretch of the imagination to picture them producing, with equal advantages, at least, as much per capita as Porto Rico. When they do this, as they will within a reasonable period following absolute free trade legislation, their foreign or external commerce, based on the present development in Porto Rico, will amount to $440,000,000 annually, and will mean the reaction of a new export trade for the United States amounting to upward of $200,000,000 annually.

This will so enhance the prestige of our country in the Pacific as to make its position impregnable. It will make it absolute master of the world's greatest ocean and the controlling factor in the trade and destiny of China.

The commercial marts of China are but a few days' travel from Manila. The nearest is two and the others from three to five days' travel by sea. China is developing rapidly; the building of railroads is giving a great impetus to the commerce of the empire and a spirit of progress prevails there that is bringing that wonderful country into more intimate relation both commercially and politically with the outside world.

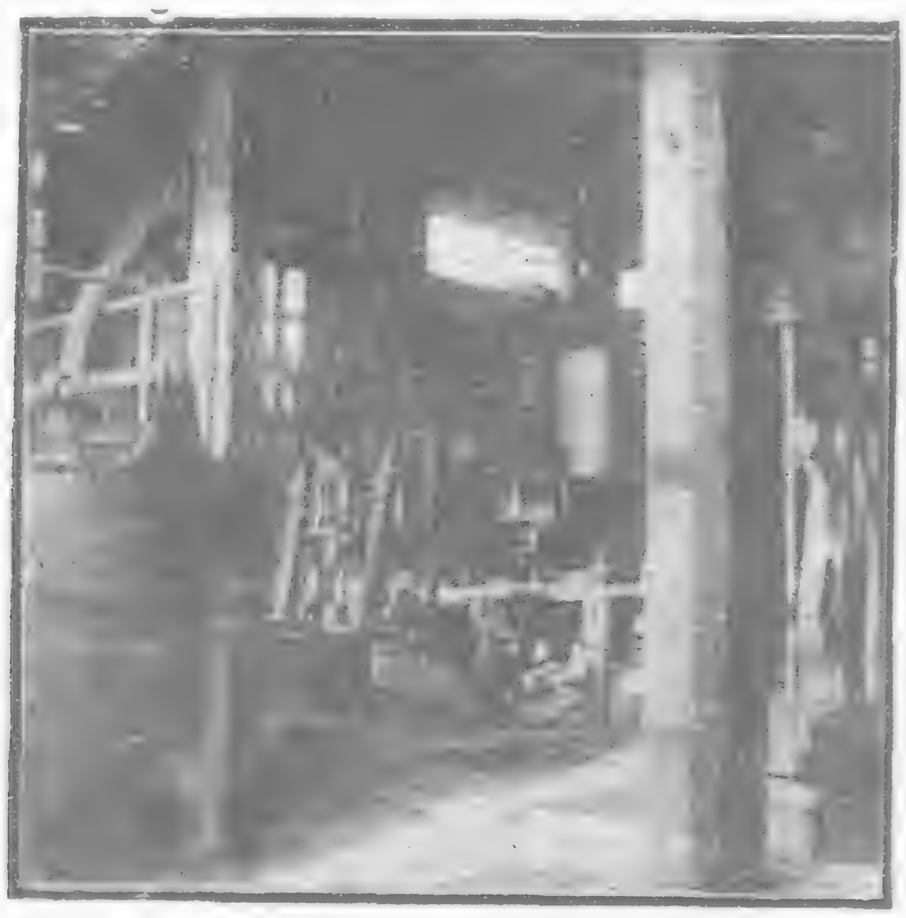


GOLD DREDGE IN OPERATION

Under present conditions, it takes from five to six months from the time mail orders are sent from China to the United States, Great Britain or Europe before the goods are received, and from four to five months for goods to arrive that are ordered by cable.

Nearly all Chinese imports are purchased through brokers, and foreign houses could not carry permanent stocks there, for the reason that they have no trade assured that would warrant it. United States houses could, however, and doubtless will carry permanent stocks in Manila, when the trade of the Philippines develops volume commensurate with their producing capacity, for our manufactures would be in control of that trade, it would be assured them. From such stocks the trade of China could be supplied, and it would not be long before Chinese merchants would appreciate the advantage of buying all they could in Manila even at a slightly increased cost, for the necessity of buying heavily and carrying abnormal stocks would thereby be eliminated. Requirements could be more accurately anticipated and a tremendous saving effected by the great reduction that would result in the amount of capital necessary to conduct their business.

This operation would be gradual, as are all radical changes in the customs of the Chinese, but in my opinion the belief is fully warranted that development, of the resources and control of the trade of the Philippines will insure our ascendency in an ultimate control of the trade of China. The annual imports into China are now about $350,000,000. It should not require very many years for them to reach an annual total of a billion dollars.



OIL REFINING APPARATUS USED IN THE PHILIPPINES

THE PRIESTMAN DREDGER, EXCAVATOR AND ELEVATOR

The Priestman Grab-Dredger, Excavator and Elevator was introduced about 30 years ago, and is now well-known. It consists of a specially designed crane and "Grab," the latter being usually what is known as the double chain type.

The first dredger put to work is shown in the illustration No. 1.

It was supplied to the order of Mr. R. A. Marillier, M.I.C.E., the Engineer-in-Chief to the Hull Dock Company, who wrote as follows respecting the working of the same:

"I have pleasure in informing you that the Patent Bucket Crane which you supplied to us, and which we have had at work nearly four months, employed in dredging mud from our



PLATE NO. 2

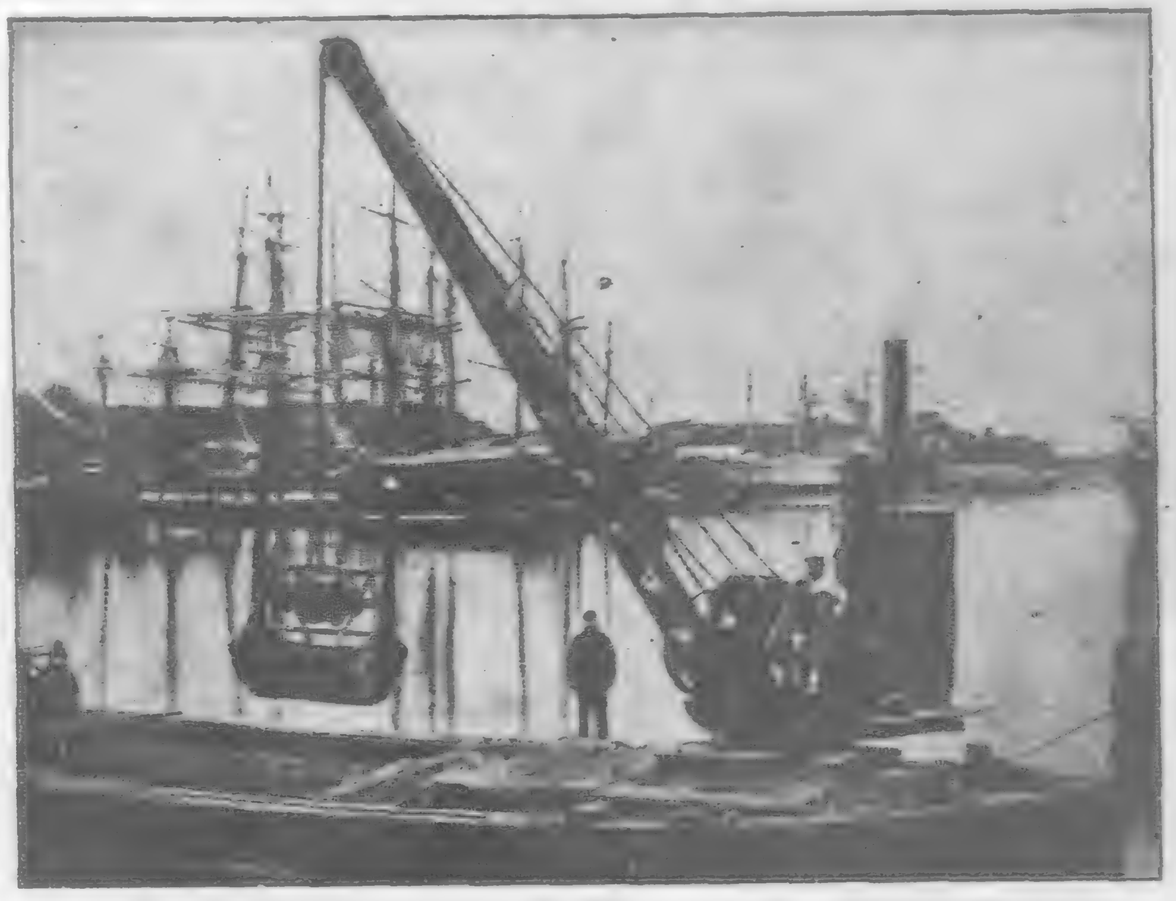


PLATE NO. 1

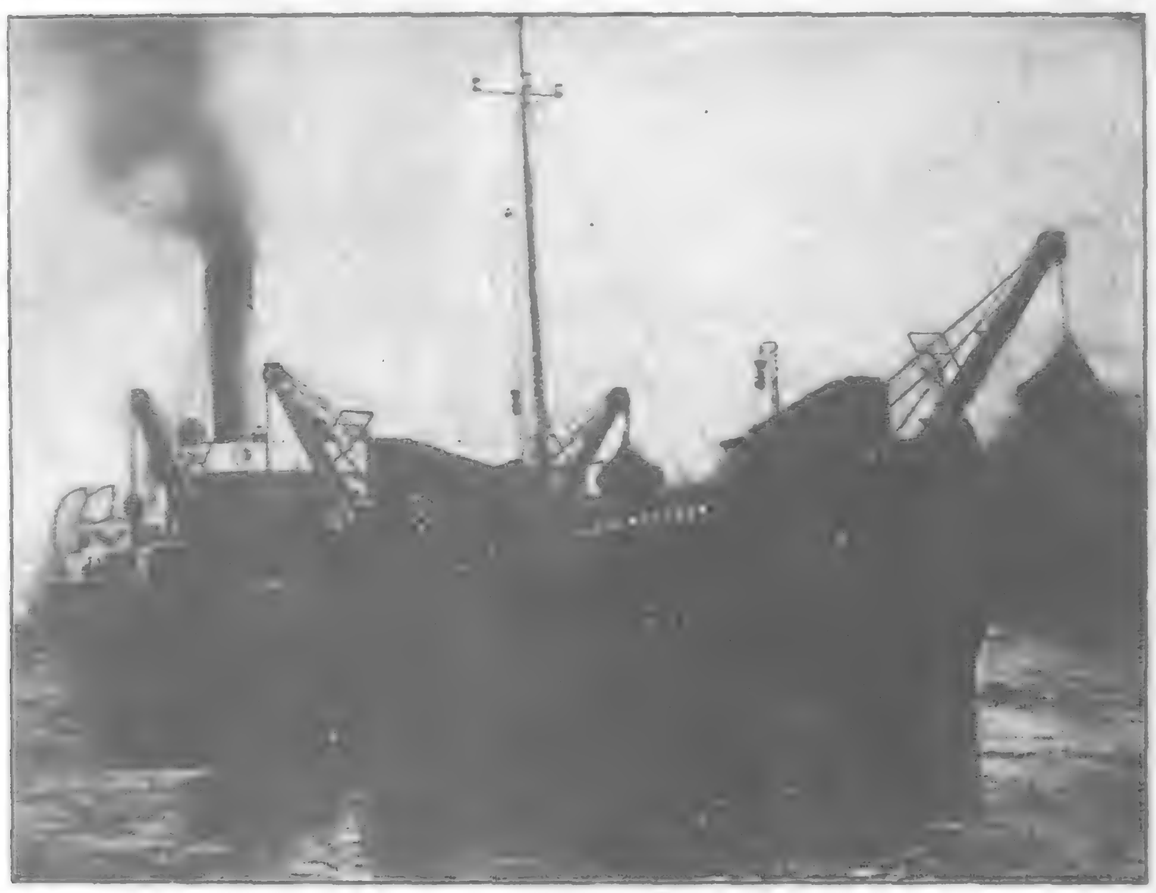


PLATE NO. 3



PLATE NO. 4

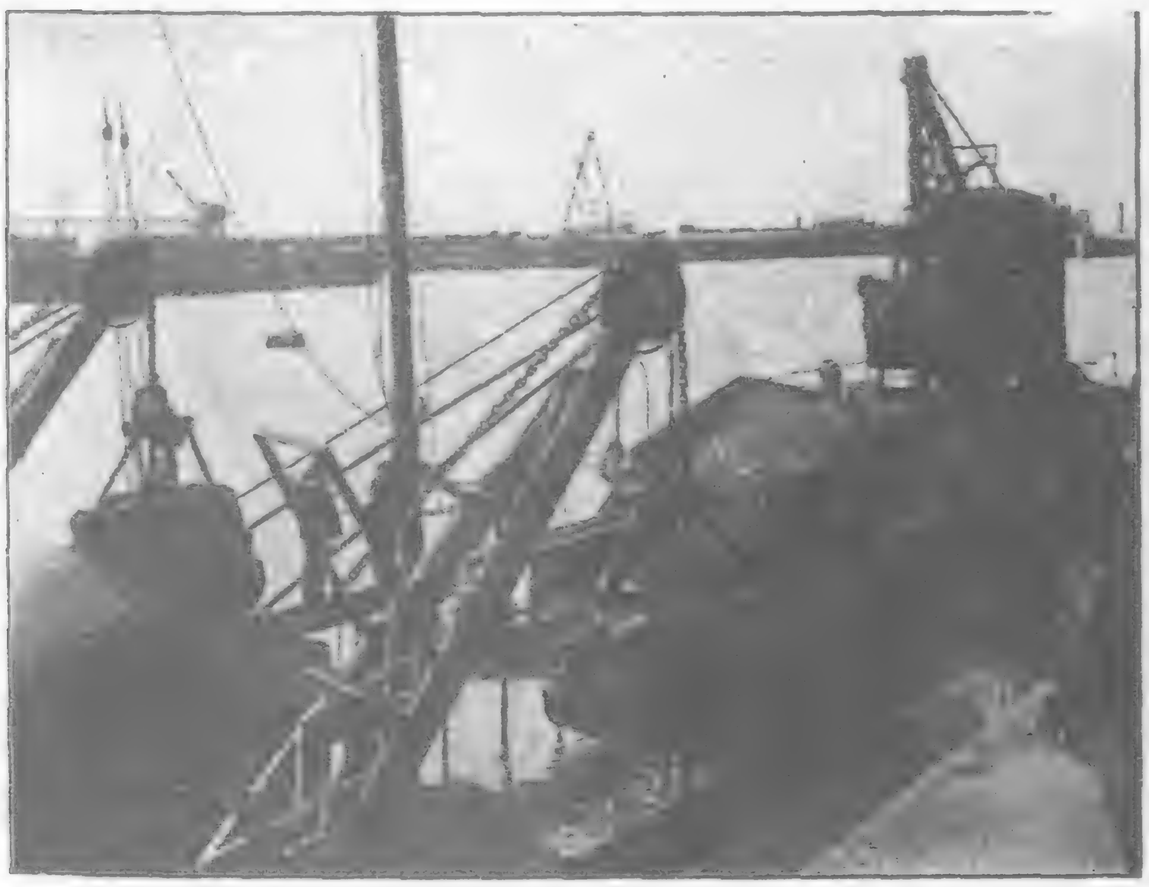


PLATE NO. 6



PLATE NO. 5



PLATE NO. 7



PLATE NO. 9

Docks, continues to work in a satisfactory manner. During six days, whilst at work in about 19 feet of water, it raised 52½ tons per hour on an average; and a maximum during one day of nearly 68½ tons per hour. The cost per ton of mud raised amounted to 1.63d, which includes all labor, coals and stores, but is exclusive of interest on cost of crane and lighters."

It is an interesting testimony to the comparatively small wear and tear in connection with a dredger of this type, that the above machine is still at work.

The advantages of the Priestman Dredger were so much appreciated that, in a very short time, similar machines were supplied to various harbors and docks at home and abroad until at the present time, there are few parts of the World in which they cannot be found.

It recently happened that Messrs. Priestman Bros. had, amongst many others, orders in hand at the same time for a dredger for a Harbor in Iceland, and for a gold dredger for Terra del Fuego.

The Priestman System has been supplied to 24 different Governments, the British Government alone having taken thirty-four.

The Liverpool Docks Board, whose dredging operations are on a very large scale, adopted the Priestman Grab-Dredger. After this had been put to work, a further order was given for a similar Dredger for removing the Pluckington Bank adjoining the landing stage, where passengers embark for America. Later, an order was given for four Priestman Grab Dredgers to be fixed on a Steam Hopper Barge, specially built for the purpose. They raise, on an average, 400,000 tons per annum, at a cost of 1½d to 1¾ per ton, which includes dredging and depositing at a distance of ten miles.

After this, four grabs of the Priestman type were supplied for working on a hydraulic dredger, the capacities of which are 100 cubic feet each. After these different Dredgers had been in use for some time, a grab-dredger of another type was adopted, but after comparing the working of this with the Priestman System, the same was discarded, and the dredger shown by illustration No. 2 was ordered in its place.

A further order has since been given for four Priestman Dredgers, and during a period of three and a half years, these dredgers, which make upwards of sixty operations each per hour in 40 feet of water, have worked twenty-one tides a fortnight, and, except during the periodical examination of the boilers, etc., have never missed a tide.

The barge upon which these Dredgers work, has a hopper capacity of 1100 tons of mud.

At the present time, Messrs. Priestman Bros. have still another order in hand for four large grab dredgers, on behalf of the Liverpool Docks Board.

The London and North Western Railway Co., after taking three Priestman Grab Dredgers at different times, have recently placed an order for a quadruple grab-dredger, as shown by the illustration No. 3.

A large number of grab-dredgers of the Priestman type have been supplied to China and Japan, one of the former being shown by the illustration No. 4.

Important improvements have been introduced from time to time. The dredger is now fitted with spur gear for the lifting barrel in place of flat friction gearing, and a patent



PLATE NO. 11

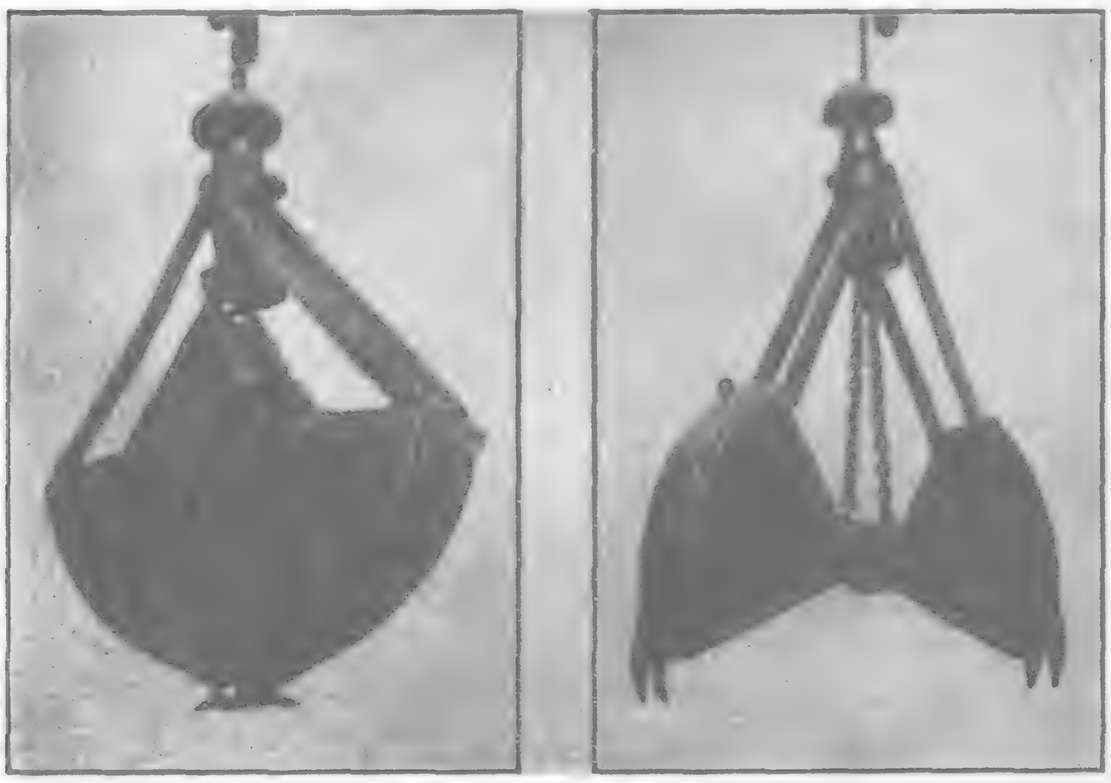


PLATE NO. 8



PLATE NO. 10

automatic barrel for operating the opening rope; it is well proportioned and very strongly built to resist the strains necessarily met with in working grabs, very quick in action, and one of the main features in that, notwithstanding the motions connected with the lifting, opening, lowering and closing of the grab, the driver has two levers only to attend to.

The Priestman Dredger can be kept in efficient working order at a very small cost in repairs. By taking a duplicate grab, delay arising from wear and tear may be almost if not entirely avoided.

It can be worked at any depth, and having no fixed working parts below water line, it can be employed in very shallow water.

It occupies less room than the ladder dredger, and it can be used in dock corners, along quay sides, and amongst shipping, where it would be difficult to work the other types of Dredgers.

The Marine Superintendent for the London & Northwestern Railway Co. writes with reference to the Priestman Dredger as under:—

"The grab-dredger can work in comparatively rough weather, as there are no fixed parts below water, but in the case of the bucket Dredger, seeing that the ladder must be lowered under water, this would not be practicable."

Another great advantage in connection with the Priestman System is that the spoil raised can be used in the formation of the banks, as shown by the illustration No. 5.

The following is an extract from the New South Wales Government report on dredging:

"The first cost and annual expense of working the Ladder dredgers is so considerable that many of the rivers would have remained unimproved had not the grab-dredger been built. The facility offered for disposing of the silt by utilizing it in the formation of the banks, renders them specially suitable for work of this kind."

Other dredgers may be capable of doing one class of work only, whilst the Priestman, besides being suitable for dredging ordinary deposit, with grabs of suitable design, can be used for excavating stiff clay, and lifting rock, frequently raising pieces up to several tons in weight.

The Engineer for the New South Wales Government reports:—

"Used in connection with rock blasting, these machines have proved invaluable for lifting broken rocks, portions of which often weigh 3 to 4 tons."

The Engineer to a British Harbor Board writes as under:—

"The boulder lifting grab is a perfect contrivance, as it enables the driver's services to be dispensed with."

Besides being adopted for large dredging operations, the Priestman System is used to advantage in lifting broken stones, etc., raising embedded timber, and, amongst other purposes, it is used for excavating docks and canals, trench cutting, lifting ballast, iron ore, discharging coal and other bulk cargo. A great variety of merchandise lost overboard has been recovered, such as steel rails, wheel barrows, a missing grab, buried treasure, etc. With the grab removed, it is used for driving and pulling out piles, and as a crane for ordinary lifting purposes, has special advantages.

The Priestman Dredger with suitable grabs has been used for removing material from Harbors where other systems have failed. This has been proved by the triple dredger ordered by the Midland Railway Co., as shown by illustration No. 6.

The Priestman System is also extensively used by Contractors and others for excavating purposes.

Orders have been received from the following amongst many other large dock and Railway Contractors:—

Messrs. S. Pearson & Son, Ltd., Messrs. Sir John Jackson Ltd., Messrs. John Aird & Sons, Messrs. Sir Wm. Arrol & Co. Ltd., Messrs. Topham, Jones & Railton, Messrs. R. McAlpine & Sons, who have taken 10 Grab Excavators, most of which are used for sinking monoliths, and the late Mr. Thos. A. Walker, who took 29 Priestman Excavators at different times, a number of which were used in the construction of the Manchester Ship Canal

Messrs. S. Pearson & Son, Ltd., referred to above, are the Contractors for the new Docks at Hull, and have taken sixteen Priestman Grab-Excavators, at different times, one of which is shown in Illustration No. 7.

An improvement in the Priestman Excavator has lately been introduced consisting of a high purchase arrangement of sheaves fitted to the grab, greatly increasing the penetrating power by means of which the grab will enter and break up ground which a hand pick would barely enter.

Grabs have been successfully designed for various kinds of special work, one of which is shown on Illustration No. 8.

The Contractor writes with regard to this Grab as follows:—

"I have pleasure in stating that the grab I bought from you for removing deposit between monoliths has answered admirably. It did in two hours work which would have taken twelve men a fortnight, and paid for itself in a very short time."

With regard to the Priestman Grab Elevator, which is used for discharging coal, coke, grain, iron ore, phosphates, minerals, and other bulk cargo, in proof of the satisfaction which these have given, and are giving, sixteen elevating grabs for coal have been supplied to one firm alone within the last eighteen months.

The two illustrations Nos. 9 and 10 show installations of Priestman Coal Grabs in operation at important Coaling Stations.

Grabs of different kinds are manufactured by Messrs. Priestman, having capacities of from 1 to 150 cubic feet, and in one hundred and fifty different types and sizes and illustration No. 11 represents a grab for working iron ore, which is probably one of the largest and most powerful ever made.

This grab lifts, in actual working, upwards of seven tons of iron ore at a time.

HUNTINGTON MILL FOR THE PARACALE GOLD DREDGING CO.

The Paracale Gold Dredging Co., Ltd., has ordered a five foot Huntington Mill from Messrs. Allis-Chalmers Co., Milwaukee, through Frank L. Strong, the Allis-Chalmers' representative. The mill is to be utilized in winning gold on the company's dredging property in Paracale.

SEPTEMBER SHIPMENTS OF PHILIPPINE CIGARS TO THE UNITED STATES

A total of 554 cases or approximately 5,500,000 cigars were shipped to the United States during the month of September making a total under free trade conditions of approximately 7,000,000 to September 30. The following is a list of the exporters with the amount in cases for September:

	Cases.
Castle Bros.-Wolf & Sons	259
W. E. Olsen & Co	113
Baer Senior & Co., Successors	51
Germann & Co	43
Philippine Co., Ltd	30
W. H. Anderson & Co	17
La Germinal	16
La Insular	9
Meerkamp & Co	8
La Minerva	4
Sprungli & Co	3
Kuenzle & Streiff	1
Total	554



COMMISSARIAT WAGON ON TRAIN



DETACHMENT OF MODERN MILITARY POLICE, TIENTSIN

FAR EASTERN COMPANY REPORTS

HONGKONG COTTON SPINNING, WEAVING AND DYEING CO., LTD.—The following is the report submitted by the General Managers at the recent meeting for the year ended July 31st:

"The balance at credit of Profit and Loss account is $29,506.51 which it is proposed to appropriate as follows:—To write off Furniture account, $3,209.49; to carry forward to credit of next year's account, $26,297.02—$29,506.51.

GOLDEN HOPE RUBBER ESTATE, LTD.—An interim dividend of 8% for the term has been declared.

BUKIT RAJAH RUBBER CO., LTD.—This company has also declared an interim dividend of 15%.

NORTH CHINA INSURANCE COMPANY, LTD.—A final dividend of 7.5% for the year 1908 on the paid up capital and a bonus of 15% to contributors was recommended by the directors at the yearly meeting.

GREEN ISLAND CEMENT CO., LTD.—This company has declared an interim dividend of 35 cents a share.

DAIRY FARM COMPANY, LTD.—The profit for the year ended July 31st, after writing off $18,510.11 for depreciation, bad and doubtful debts and providing for directors' and other fees, amounts to $61,850.01, from which it is proposed to pay a dividend of one dollar and twenty cents per share, absorbing $48,000; to transfer to reserve fund $10,000; to fire and typhoon insurance fund $2,000; and to carry forward $1,850.01.

CHARBONNAGE DU TONKIN.—The dividend of f. 37.50 a share was payable last month.

MERCANTILE BANK OF INDIA, LTD.—This institution has declared an interim dividend of 6% per annum free of income tax for the half year ended June 30th.

CONSOLIDATED MALAY RUBBER ESTATES.—An interim dividend of 20% for the half year ended June 30th.

YOKOHAMA SPECIE BANK, LIMITED.—The following is the report submitted by the directors of this institution at the semi-annual meeting held September 9th for the term ended June 30th, 1909:

The gross profits of the bank for the past half-year, including -Y- 1,141,676.90 brought forward from last account, amount to -Y- 11,989,849.29, of which -Y- 8,994,008.01 have been deducted for interests, taxes, current expenses, rebate on bills current, bad and doubtful debts, bonus for officers and clerks, etc., leaving a balance of -Y-2,995,841.28 for appropriation.

The directors now propose that -Y- 400,000.00 be added to the reserve fund, and recommend a dividend at the rate of twelve per cent. per annum, which will absorb -Y- 1,440,000.00.

The balance -Y- 1,155,841.28, will be carried forward to the credit of next account.

BARON KOREKIYO TAKAHASHI,
Chairman.

Head Office, Yokohama.
September 10, 1909.

BALANCE SHEET.

Liabilities.	*Yen*
Capital (paid up)	24,000,000.00
Reserve funds	15,500,000.00
Reserve for Doubtful Debts	468,795.79
Notes in circulation	4,744,993.29
Deposits (current, fixed, etc)	119,409,870.95
Bills payable, bills re-discounted, acceptances, and other sums due by the Bank	75,401,779.69
Dividends unclaimed	4,998.02
Amount brought forward from last account	1,141,676.90
Net profit for the past half-year	1,854,164.38
Yen	242,526,279.02

Assets.	*Yen.*	*Yen.*
Cash account:—		
In hand	15,056,283.82	
At bankers	17,784,561.93	
		32,840,845.75
Investments in Public Securities		20,555,994.66
Bills discounted, loans, advances etc		64,874,187.40
Bills receivable and other sums due to the Bank		118,715,009.41
Bullion and Foreign Money		2,991,204.11
Bank's premises, properties, furniture, etc		2,549,037.69
Yen		242,526,279.02

PROFIT AND LOSS ACCOUNT.

To interests, taxes, current expenses, rebate on bills current, bad and doubtful debts, bonus for officers and clerks, etc	8,994,008.01
To reserve fund	400,000.00
To dividend— (Yen 6% per share for 240,000.00 shares)	1,440,000.00
To balance carried forward to next account	1,115,841.28
Yen	11,989,849.29
By balance brought forward December 31, 1908	1,141.67
By amount of gross profits for the half-year ending June 30, 1909	10,848,172.29
Yen	11,989,849.29

The Chairman, Baron K. Takahashi, addressing the shareholders, said:—

Gentlemen:—In opening the fifty-ninth semi-annual general meeting of our shareholders, and presenting to you a report covering the first half of the current year and asking for your adoption of the same, as well as inviting your consent to the appropriation of profits, I propose to refer briefly to the economic conditions of the country generally, as well as to the general state of our banking operations.

Our economic conditions, during the first half of the current year, appeared at first glance to be in a very inactive state, differing little from the conditions ruling last year; but after a closer survey of the situation, it is noticeable that matters appear to have altered in a marked degree. The large stocks of merchandise seem to have nearly all been disposed of during the period between the latter part of last year and the spring of this year, while the bulk of the various enterprises, which suffered from the effect of the depression during the year before last, have during the period under review steadily recovered, enabling things to be placed once more on a sound and firm footing. However, having once experienced adverse conditions, the market is still exercising caution, although it is progressing towards a fair recovery. Considering the way in which prosperity is returning in Europe and the United States of America, we can hardly hope for any immediate activity in Japan; consequently we have not yet experienced any marked demand for money in various grades of enterprise.

In addition to the above state of things the successful floating of loans abroad for various municipalities and companies, coupled with the sale of the various Government Stocks abroad having facilitated the influx of capital from foreign countries, our internal money market has become more and more slack, and the interest on money has gradually declined; and although banks in all parts of the country have gone so far as to lower the rate of interest, yet they continually found themselves in difficulty to find proper outlets for their money.

Now looking at the state of our foreign trade during the first half-year, we find that the exports and imports amount roughly to -Y-187,000,000 and -Y-214 510,000 respectively, making a total of -Y-401,510,000. These figures, when compared with those for the corresponding period of the previous year, show a falling off amounting to -Y-38,480,000 in imports, but as there is an increase of -Y-13,980,000 in exports the net result is a decrease of about -Y-24,500,000, including both exports and imports. Of these figures the decrease in imports chiefly relate to iron-material and machinery, and this we must attribute to the fact that the business men of all classes are maintaining a cautious and guarded policy; while the increase in exports is due, on the one hand, to an improvement in some degree of our trade with China, caused by the comparative recovery of the silver, and, on the other, to the increased export of raw silk, tea and other articles, consequent upon the improved general economic conditions in Europe and the United States. In short, although there is a decrease in the foreign trade generally, when compared with the corresponding period at the last year, the general tendency of the trade may be said to be favorable to our country, and we see nothing special to cause any anxiety.

Although, as already mentioned, the internal money market has been very dull, and while our external commerce has exhibited a falling off, yet the actual condition of our banking operations has differed from the prevailing conditions of things in general, and we have seen a general briskness, due to such special circumstances as the very large sales of Government Stocks abroad in addition to a marked increase in the export of silk. During the first half of this year the amount of exchange sold and bought in Japan on foreign countries totalled roughly -Y-30,600,000 and -Y-91,570,000 respectively. If we compare these figures with those of the corresponding period of the preceding year we find the increase amounting to -Y-5,490,000 in the case exchange sold and -Y-9,850,000 in the case of exchange bought; while the exchange bought and sold in foreign countries on Japan amounted to -Y-79,610,000 and -Y-29,390,000 respectively. A comparison of these figures with those of the corresponding period of last year shows that although there was a decrease of -Y-2 410 000 in the exchange bought, yet as there was an increase in that sold amounting to -Y-4,190,000 the net result was an actual increase of -Y-17,120,000 in the totals of all the exchange operations in Japan on foreign countries and *vice versa* by all the offices of this Bank.

We have, however, to express great regret that as an outcome of the economic disturbances of recent years, the collection of some of the bills discounted and foreign exchange in Kobe, Osaka and Ryojun, could not be effected as it really should have been, and the amounts had to be adjusted in the present financial year by either writing off as a loss or by providing funds for bad or doubtful debts. In spite of these unfortunate transactions, our business has been active and extensive. Both the Head as well as Branch Offices and Agencies were all able to make fair profits, with the result that they differ little from that of the preceding period. These profits amount to -Y-1,854,164.38, the appropriation of which we have drafted and submit for your consideration and adoption.

Before concluding these remarks, I have one other matter to refer to. Our Chefoo Agency, which was opened in June of 1905 for the purpose chiefly of adjusting the withdrawal of the War Notes, will be closed on September 30, as there being no further business of this kind to transact, the maintenance of the said Agency has become unnecessary.

CHARTERED BANK OF INDIA, AUSTRALIA, AND CHINA.—The directors have declared a dividend of 13% per annum, free of income tax for the half year ended June 30th, 1909.

TANJONG PAGAR DOCK BOARD.—The receipts for the half year ended June 30 amounted to $2,435,423, an increase of $80,000. The average yearly profit of the Board has been about $1,500,000.

LINGGI PLANTATIONS COMPANY, LTD.—An interim dividend of 40% has been declared by this company.

THE KLANANG PRODUCE COMPANY, LTD.—An interim dividend of 10% has been declared.

THE CICELY RUBBER ESTATES CO., LTD.—An interim on ordinary of 25% and on preferred 26.25%.

MINDANAO HERALD PUBLISHING COMPANY.—This company has declared a dividend of 15 per cent. per annum.

FAR EASTERN RAILWAY NEWS

KIANGSU-CHEKIANG RAILWAY.—The Yuch'-uanpu has memorialized the Throne to have the management of this line placed under its control.

CHINESE TIMBER FOR RAILWAY SLEEPERS.—The railway authorities have been making investigation of the adaptability of timber grown in Yunnan, Kiangsu, Hunan, Fukien, Kueichou, Hopeh and Honan with the result that the different railway companies have been instructed to purchase Chinese timber for railway construction wherever possible instead of the imported article.

KOWLOON-CANTON RAILWAY.—Mr. S. S. Lindsay, Deputy Chief Engineer of the South India Railway, will assume the dutiesof Chief Engineer of this line and will devote much of his time to the organization of the traffic.

CHINESE EASTERN RAILWAY EXTENSION.—Russia has completed the extension of the line to Tsitsihar, a distance of five miles. It was opened on September 27th.

SZECHUAN-TIBET RAILWAY.—The construction of this projected line has been the subject of much discussion in Peking. There has been some difference of opinion as to how the funds for construction should be realized. H. E. Hsu Shih Chang favored the raising of the money by a foreign loan, and Prince Tsai Tse expressed strong disapproval of such a course with the result that for the moment the matter of financing the project has been postponed.

KANSU-TURKESTAN RAILWAYS.—The Prince Regent is greatly interested in the construction of railways from Kansu province to Chinese Turkestan and has directed the Ministry of Finance to make a report on the best means to finance these projects.

ANTUNG-MUKDEN RAILWAY CONSTRUCTION.—The question of duty on materials for the construction of this line is the subject of disagreement between the Chinese and Japanese authorities. The Japanese want the suspension of duties as provided in the Chinese Eastern Agreement with Russia. The Chinese demand that duties be imposed. For the present the customs authorities are keeping a record of the materials brought in and it is expected that the matter will soon be amicably settled.

JAPANESE RAILWAYS.—The Government has paid the 17 railways taken over the sum of yen 379,389,550 in the form of bonds leaving a balance of yen 96,929,250 which is expected paid by the end of the year.

SOUTH MANCHURIA ACTIVITY.—The South Manchuria Railway expects to complete the doubling of the line as far as Sukiatung by the last of the present month. This will mean the completion of a double track on this system for a distance of 230 miles. There is also prospect that the company will build right into the city of Newchwang. This means about three miles of additional road.

TOKYO-NAGAOKA RAILWAY.—A charter has been granted the promoters of this project which will connect the capital by rail with Nagaoka, on the west coast in the province of Echigo. The proposed line when completed will be 146 miles in length and cost in the vicinity of yen 6,000,000. The prospectus of the company has not yet been issued.

RAILWAY SUPPLIES.—The Japanese press reports the formation of a vehicle trust, in which the Railway Car Manufacturing Company, The Kawasaki Dock Company and the Japan Vehicle Company are interested. Marquis Inouye is said to have assisted the promoters. The first order is for the repair of 200 locomotives for the South Manchuria Railway Company.

KOREAN RAILWAY CONSTRUCTION.—The work of construction on the Pyongyang-Chinnampho Railway which is to connect Pyongyang with a point at the mouth of the Tadong River, a distance of 38 miles, is being pushed with vigor. The work is divided into five sections, all under construction simultaneously. The harbor of Kyomi-pho is about half way between the two places. It is understood that the authorities have decided to construct the Seoul-Gensan Railway in preference to the other projected routes under consideration for the year. It is considered that this line is of the greatest importance and as it is not possible to carry out the entire program of railway building in Korea at this time, it was decided to concentrate all efforts in pushing this line to completion.

CHINESE EASTERN REDEMPTION.—The Peking Government has instructed the Wai-Wu-Pu to open negotiations with the Russian Government with a view to redeeming the Chinese Eastern Railway.

JAPAN RAILWAY REVENUES.—The Railway Bureau estimates the revenue from the system for 1910 at yen 90,000,000 and the expenditure at yen 80,000,000. The extensions and improvements are estimated to amount to yen 40,000,000.

BAIKAL CIRCULAR RAILWAY.—The Russian Government has decided to double track the line as surveyed round Lake Baikal.

SUPPLIES FOR THE MUKDEN-ANTUNG CONSTRUCTION.—The Tiehling Flour Mill has secured the contract to supply flour for the laborers on this work and as it is estimated that 50,000 coolies will be employed, the contract is one of some magnitude.

KIRIN-HOIRYONG RAILWAY.—This proposed line, to which the recent China-Japan agreement refers, will run from Kirin via Tungchwacheng and Hwangtung-hostz to Chientao and from the last named point to Hoiryong. The total distance is 225 miles. It is said that definite arrangements were concluded at Peking for the immediate construction of this line.

JAPANESE SLEEPERS FOR THE TIENTSIN-PUKOW.—The China Import and Export Company concluded its contract for the delivery of 50,000 ties of the best oak to this company last month.

ROYAL STATE RAILWAYS OF SIAM.—The report of the Director General for the year 127 shows 844.8 kilometers of line in operation, of which 67.7 kilometers were added on the Northern Section, Pitsanuloke-Utaradit, when the line was opened to Ban Dara, November 11th, 1908. Of this length 693.4 is of 1.435 meter gauge and 151.4 of 1 meter gauge. The gross receipts were 4,188,714 ticals and the net gain 2,249,566 ticals. The cost of operation and maintenance in all departments was 39.58% of the gross receipts. The increase in mileage was 31.17% and the increase in expense 27.14%. The receipts for passenger traffic amounted to 2,672,064 ticals and from freight carrying and other sources 1,516,650. The expenditure for new works amounted to 1,125,484 ticals. The following tenders were received for the supply of portable railway track and cars for the Southern Railway:

G. Kluzer, Bangkok, accepted, delivery at Trang and Singora.....	£750.0.0
Hamburg-Siam Gesellschaft, Bangkok.....	818.0.0
Delivery at Singapore and Penang, Bangkok Dock Co., Ltd.....	685.0.0
Delivery at Trang and Singora, Riley Hargreaves, Singapore.....	620.0.0
Delivery at Trang and Singora, Howarth Erskine, Ltd., Bangkok, Delivery at Singora.....	615.0.0
Delivery at Penang Singora.....	584.0.0
Behn Meyer and Co., Bangkok, Delivery at Trang and Singora.....	596.6.8
John M. Dunlop, Bangkok, Delivery at Trang and Singora.....	565.0.0

NANKING CITY RAILWAY EXTENSION.—The extension of this line, which connects Nanking with the port of Hsai Kuan, is to be extended to Wuhu, a distance of 60 miles, and will tap one of the richest rice sections in China.

RUSSIAN RAILWAY GRAIN ELEVATOR.—The Siberian Railway is constructing a large elevator at Tchalabinsk having a capacity of over 600,000 tons.

OFFICIAL TEXT OF RECENT AGREEMENTS BETWEEN CHINA AND JAPAN.—Respecting Korea and Manchuria and Railway Disputes.

Chientao.—The Imperial Government of Japan and the Imperial Government of China, desiring to secure for Chinese and Korean inhabitants in the frontier the blessings of permanent peace and tranquility, and considering it essential in the attainment of such desire that the two Governments should, in view of their relations of cordial friendship and good neighbourliness, recognize the River Tumen as forming the boundary between China and Korea, and should adjust all matters relating thereto in a spirit of mutual accommodation, have agreed upon the following stipulations:—

Article I.—The Governments of Japan and China declare that the River Tumen is recognized as forming the boundary between China and Korea, and that in the region of the source of that river, the boundary line shall start from the Boundary Monument and thence follow the course of the Stream Shihyishwei.

Article II.—The Government of China shall, as soon as possible after the signing of the present Agreement, open the following places to the residence and trade of foreigners and the Government of Japan may there establish Consulates or Branch offices of Consulates. The date of the opening of such places shall be separately determined:—Lungchingtsun, Chutzechie, Toutaokou and Paitsaokou.

Article III.—The Government of China recognizes the residence of Korean subjects, as heretofore, on agricultural lands lying north of the River Tumen. The limits of the district for such residence are shown in an annexed map.

Article IV.—The Korean subjects residing on agricultural land within the mixed residence district to the north of the River Tumen shall submit to the laws of China, and shall be amenable to the jurisdiction of the Chinese local officials. Such Korean subjects shall be accorded by the Chinese authorities equal treatment with Chinese subjects, and similarly, in the matter of taxation and all other administrative measures, they shall be placed on equal footing with Chinese subjects. All cases, whether civil or criminal, relating to such Korean subjects shall be heard and decided by the Chinese authorities in accordance with the laws of China, and in a just and equitable manner. A Japanese Consular officer, or an official duly authorized by him, shall be allowed freely to attend the Court, and in the hearing of important cases concerning the lives of persons, prior notice is to be given to the Japanese Consular officers. Whenever the Japanese Consular officers find that a decision has been given in disregard of law, they shall have the right to apply to the Chinese authorities for a trial to be conducted by officials specially selected, in order to assure justice of the decision.

Article V.—The Government of China engages that land and buildings owned by Korean subjects in the mixed residence district to the north of the River Tumen, shall be fully protected, equally with the properties of Chinese subjects. Ferries shall be established on the River Tumen at places properly chosen, and people on either side of the river shall be entirely at liberty to cross to the other side, it being, however, understood that persons carrying arms shall not be permitted to cross the frontier without previous official notice or passports. In respect of cereals produced in mixed residence district, Korean subjects shall be permitted to export them out of the said district, except in time of scarcity, in which case such exportation may be prohibited. Collection of firewood and grass shall be dealt with in accordance with the practice hitherto followed.

Article VI.—The Government of China shall undertake to extend the Kirin-Changchun Railway to the southern boundary of Yenchi, and to connect it at Hoiryeng with a Korean railway, and such extension shall be effected upon the same terms as the Kirin-Changchun Railway. The date of commencing the work

of the proposed extension shall be determined by the Government of China, considering the actual requirements of the situation, and upon consultation with the Government of Japan.

Article VII.—The present Agreement shall come into operation immediately upon its signature, and thereafter the Chientao Branch Office of the Residency-General, as well as all civil and military officers attached thereto shall be withdrawn as soon as possible, and within two months. The Government of Japan will, within two months hereafter, establish its Consulates at the places mentioned in Article II.

In witness whereof the undersigned, duly authorized by their respective Governments, have signed and sealed the present Agreement in duplicate, in the Japanese and Chinese languages.

The 4th day of the 9th month of the 42nd year of Meiji.

The 20th day of the 7th month of the 1st year of Hsuan Tung.

HIKOKICHI IJUIN.
LIANG TUN-YEN.

Manchuria.—The Imperial Government of China, actuated by the desire to consolidate the relations of amity and good neighbourliness between the two countries, by settling definitely the matters of common concern in Manchuria, and by removing for the future all cause of misunderstanding, have agreed upon the following stipulations:—

Article I.—The Government of China engages that in the event of its undertaking to construct a railway between Hsinmintun and Fakumen it shall arrange previously with the Government of Japan.

Article II.—The Government of China recognizes that the railway between Tashichao and Yinkow (Newchwang) is a branch line of the South Manchurian Railway, and it is agreed that the said branch line shall be delivered up to China simultaneously with the South Manchurian Railway upon the expiration of the term of concession for that main line. The Chinese Government further agrees to the extension of the said branch line to the port of Yinkow (Newchwang).

Article III.—In regard to the coal mines at Fushun and Yentai the Governments of Japan and China are agreed as follows:—

(a) The Chinese Government recognizes the right of the Japanese Government to work the said coal mines.

(b) The Japanese Government respecting the full sovereignty of China, engages to pay the Chinese Government tax upon coals produced in those mines. The rate of such tax shall be separately arranged upon the basis of the lowest tariff for coals produced in any other places of China.

(c) The Chinese Government agrees that, in the matter of the exportation of coals produced in the said mines, the lowest tariff of export duty for coals of any other mines shall be applied.

(d) The extent of the said coal mines, as well as all the detailed regulations, shall be separately arranged by commissioners specially appointed for that purpose.

Article IV.—All mines along the Antung-Mukden Railway and the main line of the South Manchurian Railway, excepting those at Fushun and Yentai, shall be exploited as joint enterprises of Japanese and Chinese subjects, upon the general principles which the Viceroy of the Eastern Three Provinces and the Governor of Mukden agreed upon with the Japanese Consul-General in the fortieth year of Meiji, corresponding to the thirty-third year of Kuangsu. Detailed regulations in respect of such mines shall, in due course, be arranged by the Viceroy and the Governor with the Japanese Consul-General.

Article V.—The Government of Japan declares that it has no objection to the extension of the Peking-Mukden Railway to the City Wall of Mukden. Practical measures for such extension shall be adjusted by the local Japanese and Chinese authorities and technical experts.

In witness whereof the undersigned, duly authorized by their respective Governments, have signed and sealed the present Agreement in duplicate, in the Japanese and Chinese languages.

The 4th day of the 9th month of the 42nd year of Meiji. The 20th day of the 7th month of the 1st year of Hsuan Tung.

HIKOKICHI IJUIN.
LIANG TUN-YEN.

AUSTRALIA'S TRANS-CONTINENTAL LINE.—The Northern Territory Bill under consideration has for its purpose the taking over of the debt of the territory, the purchase of the Port Augusta-Oodnadatta Railway and the construction of a trans-continental line connecting the Northern Territory with South Australia. The cost of this line would be about $23,000,000 and would tap a wonderfully fertile country.

JAPAN'S RAILWAY SERVICE.—The number of officials and employees under the Railway Board is 89,868, of which 87,827 are male and 2,041 female. Their annual salaries amount to 88,480,000 yen averaging only 17.13 yen per month per capita.

FRENCH TONKIN RAILWAY.—The line is now within a few miles of Yunnanfu and it is expected that service will be inaugurated by the first of November. The terminus at Yunnanfu has been completed for some time and with its offices, shops and warehouses. The extension of this line to Luchow in Szechuan is now being discussed.

SURYNEN CHENG-PEKING-KALGAN EXTENSION.—The Board of Posts and Communications has decided to extend the Peking-Kalgan line to Surynen Cheng. The survey and estimates have been completed and the cost is estimated at $20,000,000 and two years required for the completion.

THE KOWLOON-CANTON RAILWAY (BRITISH SECTION).—The estimates for construction expenditure on this section for 1910, amount to $1,800,548 which, added to the $10,015,223 expended up to the end of 1909, will amount to close to $12,000,000. Of the amount for 1910, $60,000 represent expenditure for workshops, $238,300 for station buildings and equipment, and rolling stock $307,440. Traffic receipts for the year are estimated at $20,000.

KIRIN-KUANGCHENGTZE RAILWAY.—The work of surveying this line will begin early in the spring under the direction of the Japanese Chief Engineer. It is the purpose of the authorities to press the work with all expedition and so as to complete the line within a year from next March.

RAILWAY OFFICIALS APPOINTED.—Taotai Jeme Tien-Yow, who so successfully directed the construction of the Peking-Kalgan Railway, has been appointed General Manager of the Szechuan-Hankow and the Peking-Shiyuan lines. Kuan Mien-chun succeeds to the management of the Peking-Kalgan line.

TSITSIHAR-HUNCHUN PROJECT.—The Russian Government has filed a petition for permission to construct a line connecting these two points basing their claim for recognition on the privilege granted the Japanese in the reconstruction of the Antung-Mukden line.

CHEKIANG RAILWAY COMPANY.—This company has been instructed by Peking to extend its line to Sanao on the South and the Tientsin-Pukow line on the North.

CANTON-MACAO RAILWAY.—The proposal by the Portuguese to construct and operate the proposed line jointly has been renewed, and an investigation is being made into the financial standing of the present concessionaire as to his ability to carry out the work. It is probable that China will decide to construct this line on her own account.

KASHING'S RAILWAY CONNECTION.—Three trains run daily between Kashing and Hangchow and two from Hangchow to Shanghai. From reports received this line is in good condition and admirably directed.

JAPAN'S THROUGH RAILWAY LINE.—By the end of November it will be possible to proceed by railway from the northern part of Hokkaido to the southern part of Kyushu.

CHAO-CHOW SWATOW RAILWAY.—Director General Chang Pih-shih has returned $800,000 to the Japanese capitalists and $200,000 borrowed from the Formosa Bank, thus eliminating Japanese influence from the operation of this line. This action was the result of a strong reprimand from Peking.

CONTRACTING NEWS

SHANGHAI MUNICIPALITY.—Erection Goods Lift for Electricity Works.—Messrs. Samuel McGregor & Co., Ltd., were awarded the contract at £411, the other tenders were:

	£
Shewan, Tomes & Co.	428
Siemssen & Co.	460
Brighten, Malcolm & Co., Ltd.	475
Shanghai Dock & Engineering Co., Ltd. Tls. 4,250	496
Shanghai Electric & Asbestos Co., Ltd.	511
Anderson, Meyer & Co.	518
Innis & Riddle	545
Siemens Schuckertwerke	578
Scott, Harding & Co.	650
Jardine, Matheson & Co., Ltd.	935
Arnhold, Karberg & Co.	965

MUNICIPALITY SINGAPORE—COAL.—The tender of Messrs. McAlister & Co. to supply 2,000 to 3,000 tons of Hetton at 22/ ex-ship Singapore or the same amount of Abermain at 21/ shipments to be made in November and January next.

MARITIME CUSTOMS, PEKING.—Erection concrete water tanks at Swatow—Awarded Messrs. Howarth Erskine Ltd.

MUNICIPALITY SINGAPORE.—34 steel stanchions. Awarded Messrs. Riley Hargreaves & Co., Ltd. Price $1,200.

U. S. COMMISSARY, MANILA.—Vegetables. Awarded Hashim & Co., Manila. Price: Potatoes, ₱3.98; and Onions, ₱4.48 per cwt. The other bidder was the firm of Messrs. Castle Bros.-Wolf & Sons, Potatoes, ₱4.50, and Onions ₱4.20 per cwt.

U. S. NAVY-ELECTRICAL SUPPLIES.—Awarded Philippine Electrical Supply Company. 500 brass key sockets at ₱0.399 each; 30,000 ft. R. C. Wire at ₱0.029 per ft. The other bidders were F. L. Strong, F. R. Thompson, Germann & Co. The Electrical Supply Co. were not the lowest bidders but secured the contract on agreement to give immediate delivery.

TENDERS INVITED.—H. B. M. Naval Yard, Hongkong.—Timber Material Supply for One Year of Teak, American Fir, Oregon Pine, Camphor Wood, Hardwoods, in bulk, thick stuff, scantling, plank and board. Further information address Naval Store Officer, H. M. Naval Yard.

TENDERS INVITED.—Bureau of Supply, Paints and Hardware, Manila, opened November 1st; Hospital Furniture including hardware, glassware, enameled ware, bottles, electrical equipment, etc., to be opened December 15th; hardware, plumbing supplies, etc., to be opened November 22.

FOR SALE

Patent Slip supplied to H. H. The Rajah of Sarawak by Messrs. Day Summers & Co., Ltd., of the Northam Ironworks, Southampton, England, for sale f. o. b. Kuching, Sarawak. The Slipway has never been erected and was designed to take a vessel of a total displacement of 570 tons, 44′ 6″ over paddle-boxes, 175 ft. long drawing 1′ 1½.″ All complete including winding gear and rails, except for the boiler and can be seen lying here. Full particulars will be supplied to any bona fide enquirer on application being made to the undersigned.—H. F. CAREW-GIBSON, *Commissioner of Public Works and Surveys.*

THE EAST BATAN COAL COMPANY'S MINES

One of the most promising enterprises in the Philippines is that of the East Batan Coal Mining Company operating on the Island of Batan, in the province of Albay. Work on the development of the coal deposits began in 1906 by private capital and at the end of the year over 200 feet of tunneling had been accomplished and 150 tons of coal taken out. A wharf was built and small vessels called for coal during the early part of the year 1907. The coal was found very satisfactory and while not equal to the Australian proved much more economical. In September, 1907, the East Batan Coal Company was organized with a capital of Pesos 200,000 and Pesos 50,000 in stock were put on the market. Owing to the panic, little was sold, but in November of that year work was commenced on a 5 ft. 6 in. seam on the west of the barrio of Batan and since that time all the energy of the company has been concentrated there with splendid results. As the workings go deeper the quality of coal improves until at the present time the average consumption of Batan Coal is very little in excess of the Australian product. In July, 1908, a syndicate was organized in Cebu to purchase the remaining treasury stock at par value. This syndicate not only purchased the stock but also took sufficient private stock to give it controlling interest. Then began a vigorous policy of development and there were added to the plant more lighters to expedite the coaling of ships, a wharf 300 feet long with plenty water alongside to accommodate the largest ship in the world with a railroad from the mine to the wharf equipped with two locomotives and 50 2-ton cars to expedite the handling of the product. Besides there were secured additional track and cars for the mine work, pumps, hoists, tools and machinery of all kinds for repair shops, etc. Offices were built and a barrio laid out to accommodate 2,000 miners and their families. Development work has been carried on continuously until over half a million tons have been blocked. One feature of the mine is its freedom from gas.

The harbor of Batan is located west of the Rapu Rapu Straits between Batan and the Rapu Rapu islands, is practically landlocked and well protected and secured from bad weather. There is an average of 54 feet of water with mud bottom.

It is now proposed by the company to continue the development at the rate of 1,800 tons of coal a day and to increase the capacity of the plant until it is capable of an output of from 1,000 to 2,000 tons daily. Already orders have been placed for more than 1,000 tons a day without solicitation. To carry out this plan the East Batan Coal Mining Company has been organized with a capital stock of Pesos 3,000,000 and a purchase made of the old company's property for Pesos 2,000,000. This leaves Pesos 1,000,000 of the capital stock of which it is proposed to put 8,000 shares on the market at par value of pesos 50 a share. This amount is estimated sufficient to carry out the project and equip the mine for future needs. It is also proposed to distribute the balance of the treasury stock among the shareholders purchasing the new issue at a later date.

The coal is sold at the mines at the rate of Pesos 6.50 a ton and the cost of producing being about Pesos 3.20 under present methods.

It is the desire of the Directors to install a complete electric plant at the mines, using electrical coal-cutting machines, electric coal gathering equipment, and electric pumps, and to light the mine throughout by electricity. The installation of this machinery will greatly reduce the force of laborers in the mine and at the same time greatly increase the production.

Lighting the mine with electricity will not only facilitate the work below ground, but at the same time eliminate the present costly system of lighting with candles. This new system will also enable us to light up the plant outside the mine, making it possible to work the mine as well as dispatch ships either night or day.

This system will enable all the mechanical part of the plant to be concentrated at one central station, so that the same force of engineers and firemen will do the work of the several stations as arranged at present, thus greatly reducing the operating expenses, and relatively increasing the efficiency of the plant.



MECHANICAL COAL-LOADING TOWER ON EAST BATAN COAL MINING COMPANY'S WHARF AT BATAN

The excessive rates charged by the Inter-Island steamers to move cargo coal to ports within the islands and the lack of equipment on these steamers for handling cargo coal, will necessitate the company procuring, by purchase or otherwise, suitable steamers for placing cargoes of coal at the various markets within the islands. Coal for foreign ports, however, may be transported by foreign ships. From such ships we already have very low rates of transportation.

494,209 tons of coal, of the market value of about ₱5,000,000, were imported into the Philippine Islands during the past fiscal year.

With the proposed new equipment, the greater part of this coal can be supplied from the mines of "The East Batan Coal Mining Company," and the millions of pesos paid for same thus be kept in the Philippine Islands, instead of going out of the country, as at present.

It is proposed to extend the present wharf from 300 to 600 ft. and inerease the present bunkers now in course of construction to a capacity of 6,000 tons. Under this method we can load ships with bunker coal in a few hours while a cargo ship could be loaded with 6,000 tons within 24 hours at a cost of a few cents per ton.

The proposed extension to the present wharf as well as the leading bunkers will all be built of native hard lumber, of which the Company possesses abundance on its own lands adjoining the harbor.

The present wharf is built of dagan, and the proposed extension will be built of the same material—a native wood that resists well the teredo.

These bunkers will be used for the storing of the coal as it comes from the mine, and will be so constructed that vessels will take shipside delivery of their coal direct from the bunkers.

While the Company already possesses a very excellent transportation equipment between the mine and the wharf, it will be necessary to add to this equipment additional rolling stock to care for the increased production. The present haul is 3,000 ft. between the mine and the wharf, on a single track with a few turnouts, but this line will have to be double-tracked to accommodate the increased haulage.

Steaming tests made by the Bureau of Science with Batan and Australian coals on two coast guard vessels, sister ships, by ordinary steaming for 5,000 miles gave the cost of Australian coal used at Pesos 0.66 a mile and with Batan coal only Pesos 0.38 a mile making a savings of Pesos 1500 by the vessel using Batan coal for that distance.

The United States Army Transport Dix gave the coal an exhaustive test on a voyage from Batan to Honolulu with the result that the coal consumed was only about 18% in excess of Australian. This coal was taken from the Government Mine on the west part of the Batan islands where a wharf and bunkers are being erected there and the Government has appropriated $100,000 to carry on the work at the mine during the present year. About twenty vessels are now coaling at Batan and were it not for the limited equipment, many more would take advantage of the cheap coal available.

The gentlemen identified with this project are representative businessmen and officials of the islands. The President is Col. J. J. Rafferty, Collector of Customs of Cebu, and the First Vice-President is A. U. Betts, Ex-Governor of the Province of Albay. The Secretary is Harold Homan, Esq., of Cebu, the Treasurer, Messrs. Joaquin Castro Co., of Cebu, and Ernest S. Daniels, Esq., is the General Manager.



THE "COAL STORAGE PILE" AND LOADING CRANE OF THE EAST BATAN COAL MINING CO.
LOCATED BETWEEN MINE AND WHARF

F. M. S. TIN OUTPUT FOR AUGUST

	Piculs.
Belat	556
Bruang	123
Bruseh	230
Gopeng	600
Kanaboi	397
Kinta	430
Kuantan	106
Lahat	800
New Gopeng	165
Pahang Consolidated	1,340
Pengkalen	400
Pusing Lama	545
Rambutan	400
Redhills	603
Royal Johore	83
Salak South	286
Sempam	78
Serendah	440
Sipiau	95
Tekka	650
Tronoh	3,360

PHILIPPINE GOLD OUTPUT FOR SEPTEMBER

Benguet Consolidated, 307.5 oz. fine bullion and 347 oz. cyanide matte.

Paracale Gold Dredging Co., Ltd., 400 oz.

THE NEW PHILIPPINE HEMP STRIPPING MACHINE

The new machine built for the Philippine Hemp Machine Company by the Hongkong and Whampoa Dock Company, Ltd., arrived in Manila last month and was installed on the Palomar Park grounds where extensive tests were made of its effectiveness and capacity. They were pronounced even more successful than anticipated. The new model, and the machine definitely decided upon, has twice the capacity of the first machine turned out by the company. It is built in conformity with the specifications made after years of experience in working out the mechanism with a view to providing a maximum of strength with a minimum of weight. The machine was on exhibition every afternoon and attracted a large number of daily visitors while in Manila. It weighs about 2,000 pounds and has a capacity of 600 pounds of fine stripped hemp a day. The tests at Palomar were very satisfactory, but the company decided to make extended practical tests in the hemp fields before satisfying themselves of its adaptability to all the conditions of operation. For the reason it was difficult to secure young hemp stalks in the vicinity of Manila the company decided to take the machine to Davao where the best quality of hemp is grown. The machine is now being tested out there, and if everything is satisfactory, and there is every reason to believe that the machine will meet every requirement, an order will be placed for 25 additional machines at once.

Tests made by the government laboratory demonstrate that the tensile strength of machine stripped hemp is 50% greater than the hand stripped product.

FAR EASTERN ENGINEERING, CONSTRUCTION, COMMERCIAL AND FINANCIAL NEWS

ELECTRIC RAILWAYS, LIGHT, POWER, TELEGRAPHS, TELEPHONES, AIRSHIPS, ETC.

SWATOW ELECTRIC LIGHT COMPANY.—This company was recently reorganized with a capital of $140,000. The former company failed some time ago after exhausting more than half of its capital in losses. This was largely due to inadaptability of the old installation. New engines are being installed to replace the old ones, the latter proving far from being of further service.

SWATOW-CHENG-HAI ELECTRIC RAILWAY PROJECT.—A company was recently formed with a capital of $300,000 for the purpose of building a railway connecting the city of Swatow with Cheng-Hai, a distance of 10 miles. The construction of this line is not only considered desirable, but offers no serious difficulties.

HANKOW TELEPHONE SYSTEM.—It is the purpose of the projectors of the scheme to install the Hankow system to connect all the different foreign communities with the one central.

CANADIAN PACIFIC WIRELESS.—The installation of the Marconi system on the steamers of this line has proven most satisfactory. The Empress of India reported to the Hongkong agents via Yokohama at a point 1,200 miles from land on her last voyage to Vancouver.

JAPANESE WIRELESS STATIONS.—In the Nagasaki district there are two stations—one at Osesaki on the southern extremity of Goto Islands and the other at Tsunoshima on the west coast of the main land. According to Consul Seidmore, the wave lengths are 984.3 feet and the radius of each station approximately 137 miles. The charges for this service from foreign vessels are 42.5 cents for the first five words and 8.5 cents for each additional word.

AIRSHIP SOCIETIES IN JAVA.—The membership of the airship societies of Batavia and Sourabaya is reported flourishing, and a flying machine has been ordered from Europe. Subscriptions to the amount of 9,000 guilders have already been subscribed by the members of the Sourabaya branch for this purpose.

SHANGHAI IMPERIAL CHINESE WIRELESS STATION.—The installation of the wireless system with the apparatus removed from the Palace Hotel is complete. The mast erected is 160 feet high and messages only for transmission to ships at sea will be taken. The charge is 10 cents (mex) a word with a minimum total for message of $1.

TAIYUENFU (SHANSI) ELECTRIC LIGHT.—The latest reports from this point are to the effect that the installation of the electric light system for the city will soon be completed. The offices are finished and the plant is being installed. Some difficulty was experienced in building the steel chimney, but that has been successfully accomplished.

TYPHOON INTERFERES WITH CABLES.—Communication between Hongkong, Foochow, Shanghai, Formosa and the North was interrupted during the recent severe typhoon and messages were delivered to Shanghai and other points north by way of Manila. Hongkong messages for Formosa were delivered via Japan. The Foochow-Formosan Cable was interrupted about 10 miles off Tamsui and the land wires near Foochow. Repairs were made promptly and communication restored.

PEKING'S NEW TELEPHONE SYSTEM.—The contract secured by the Western Electric Company includes the installation of a trunk system of the latest type with two switch boards similar to those used in New York City, the latter having a capacity of 10,000 telephones. The equipment ordered for present needs is to accommodate 2,500 telephones which will be increased to meet the demand. Several hundred feet of lead covered aerial as well as for underground wire will be utilized. With the completion of this work successfully, it is the purpose of the Imperial Government to go extensively into the installation of different systems in the leading cities of the empire.

ELECTRIC RAILWAY TRAILERS FOR SHANGHAI.—The two trailers ordered by the Shanghai Electric Tramways for experimental purposes are expected in November and if satisfactory the order will be duplicated.

PHILIPPINE CABLE SHIP.—Director Helm of the Bureau of Navigation has purchased the Manila at Singapore for use as a cableship. It cost ₱165,000. This vessel is of 2,722 tons, 307 feet in length, 40 foot beam and 14 foot draught.

SIAMESE AEROPLANES.—The Bangkok Dock Company recently advertised that it was prepared to receive orders for the Bleviot flying machine at 7,000 ticals and from reports there seems to be great interest roused.

TOKYO-OSAKA RAILWAY PROJECT.—The application for a charter to construct an electric line connecting these two points has been rejected by the Government on the ground that the construction of this line by a private company would be inconsistent with the policy of Government Nationalization of railways. It was also decided that a six sen fare would not pay a profit on an investment of yen 100,000,000.

NEW JAPANESE AEROPLANE.—Mr. S. Narabara, son of Baron Narabara, and lieutenant in the Japanese Navy, is the inventor of an airship of new design. It is propelled by gasoline with provision for utilizing the waste gas from the engine. It is raised in the air by its own power

TANJONG PAGAR DOCK POWER STATION.—This plant, installed by the Dock Board at Keppel Harbor for the purpose of supplying power to operate the machinery, the pumping plant of the old and new docks, and the large cranes of the wharves, was formally opened last month. The plant has a capacity of 1,700 h. p. and is capable of expansion to 3,700 h. p. Miss Anderson, daughter of Sir John Anderson, pressed the lever that started the generators.

ANGLO-JAPANESE HYDRO-ELECTRIC POWER COMPANY.—According to latest advices, the experts sent out from England to examine into the feasibility of this project have reported favorably with the exception of a couple of changes in the original draft of the plans. The recommendation is made to reduce the retaining walls from 300 feet to 200 feet in height and that the reservoir be located at Ushikubi about six miles more distant than in the original site. This will give a fall of 1,100 feet, and a reservoir with a capacity of 27,000,000 cubic feet delivering a h. p. of 60,000 at Tokyo. The experts leave for England this month to report and it is believed that capital will be forthcoming to finance the scheme.

NAGASAKI-FORMOSAN CABLE.—The starting point in Japan of the new cable will be Moji and it is estimated that the expense will reach yen 800,000.

KULING ELECTRIC RAILWAY.—A scheme to build a railway from the plains up the mountain to Kuling is being agitated by the Kuling authorities. Plans were outlined for a line equipped with cars capable of carrying a dozen passengers from the bottom to the top of the mountain at intervals of forty minutes. From indications it would seem that by the end of 1910 this enterprise will be realized.

JAPANESE GAS COMPANIES.—Demand for gas for lighting and cooking purposes in Japan is increasing as is evidenced by the number of charters for which applications have been made. Charters have already been granted for Tokyo, Toyohashi and Moji, while applications have been filed from Okayama, Hirosima and Tokushima. The reason assigned is the increased cost of charcoal for heating purposes.

RUSSIAN FLYING MACHINE.—Advices from St. Petersburg are to the effect that an engineer named Rostovitch has perfected a dirigible airship. It is propelled by a 60 h. p. engine and has a speed of 60 miles an hour. It is reported to have great lifting power.

HONGKONG NAVAL YARD INSTALLATION.—The modern electric power generating plant installed by Messrs. Siemens Bros. Ltd., Dynamo Works, Stafford, was formally opened, September 13th. A pair of Babcock & Wilcox type boilers are installed in the boiler room and supply two magnificent triple expansion Bellis & Morcom engines, the latter being coupled directly with the generating plant that supplies all the light and power to the Naval Yard. These engines are each 550 h. p. The dynamos, two in number, each 300 kilowat, are provided with the latest devices for effectual ventilation. The main switchboard has one panel for each department supplied and registers automatically the current available. In the battery room are 125 cells with a total capacity of 1,000 ampere hours. Mr. J. Douglas Butcher, resident engineer, was in charge of the installation in the interest of Messrs. Siemens Brothers.

PROJECTED ELECTRIC RAILWAY FOR ILOILO.—A scheme is on foot to provide the city of Iloilo with an up-to-date street car service and connect the city with Molo and Jaro. It is believed that sufficient local capital can be secured to finance the project.

ILOILO TELEPHONE SYSTEM.—The installation of the new system in the second city of the Philippines is now almost complete, and it is believed that a most prosperous exchange will be established not only giving a substantial service to Iloilo, but which may be extended to the suburbs with satisfying results.

CHIENTAO-HONGSHUN TRAMWAY.—An application has been filed with the central government by the Chinese in Chientao for permission to build a tramway between the two points, a distance of about 75 miles.

THE YAMATE ELECTRIC RAILWAY.—A movement is on foot to supplant steam by electricity on what is known as the Tokyo Circular Railway. This line runs from Shinagawa via Tabata to Akabane, where a connection is made with the line running from Uyeno northward. A transfer station to effect connection with the electric line is being built and it is thought will be ready for traffic by the first of the year.

CHENGKIANG ELECTRIC LIGHT.—The equipment for an electric light plant has been ordered from England to cost in the vicinity of Tls. 70,000. Other improvements are proposed in this city.

EMPRESS DOWAGER ORDERS ELECTRIC LIGHT AND TELEPHONES.—The Chang Chun Palace is to be provided with these modern conveniences by direction of the Empress Dowager.

PUBLIC WORKS, DOCKS, WHARVES, BUILDINGS, ETC.

SINGAPORE PUBLIC WORKS.—During the year 1908, 290 feet of cylinder foundations were laid in the new harbor at the Northern end of Johnston's pier and 590 feet were completed on the Southern end. Pulan Quarry was opened up and supplied 36,000 tons of granite rubble for the inner south and west moles. Work progressed favorably on the docks and wharves of the Tanjong Pagar under the direction of John Aird & Co., contractors. The cost when completed will reach approximately £1,000,000. The wharves construction comprises a renewal in concrete blockwork of over 3,100 feet and wrought iron cylinder construction of 1,131 feet. The minimum depth when completed will be 33 feet alongside. The contract for the new graving dock and works at Keppel Harbor represents a value of £350,000 approximately and it is expected completed in 1912.

MILITARY ICE PLANT IN ILOILO.—The U. S. Quartermaster's Department is preparing plans for the erection of a large up-to-date ice plant at Iloilo for the purpose of supplying ice to the military in the Department of the Visayas.

FLOATING BRIDGE AT POOTUNG.—The construction of a floating bridge over the Huangpu to Pootung is being agitated by the Chinese. The estimated cost is placed at Tls. 150,000.

CHARTERED BANK'S NEW BUILDING AT BANGKOK.—These fine premises were formally opened on September 5th in the presence of Prince Kitykaru. The building is two stories with a frontage of 120 feet and depth of 140 feet. Messrs. Howarth Erskine, Ltd., were the contractors.

NEW DIET BUILDING AT TOKYO.—The cost of the projected building for the Japan Diet is estimated at yen 15,000,000 and the first instalment of yen 2,000,000 will be provided in next year's budget. The construction will cover a period of eight years.

NEW NAVAL DOCK AT KURE.—This new dock when completed will accommodate a vessel of 30,000 tons and is known as number three. The excavation has been completed and the ceremony of founding the dock was performed recently by Admiral Yamanouchi. The work of lining is now in progress.

TOKYO HARBOR IMPROVEMENTS.—There is renewed interest in the plans of Dr. Furuichi for the improvement of the harbor and reclamation scheme. As it has been presented, in all, the cost will be about yen 74,000,000, of which yen 48,000,000 represents the cost with interest, etc., of the harbor construction and yen 36,000,000 the reclamation work. This amount will be partly defrayed by the sale of reclaimed land upon which would be realized about yen 50,000,000. It is estimated that a great saving in transportation now charged for carrying goods from Yokohama to Tokyo.

HUANGPU CONSERVANCY WORKS.—The announcement of the Taotai of Shanghai that there were no funds to continue the work of dredging resulted in the work under way being stopped by the Asiatic Dredging Company whose previous contract expired early in September. The matter has been referred to the diplomatic corps at Peking and great interest is shown by the commercial community of Shanghai in urging provision for continuation of the work. It is believed that should progress be delayed much of the work will be undone by continual silting.

PORT ARTHUR HARBOR REGULATIONS.—New regulations have been prescribed which will remove the rules requiring Naval inspection of vessels arriving and departing.

GOMBAK RIVER RETAINING WALL.—The section of the retaining wall being constructed under contract by the Federated Engineering Company will be finished by the end of the month and several months ahead of time.

JAPAN'S PUBLIC WORKS.—The budget for next year will provide for the expenditure by the Department of Justice of yen 600,000 for the improvement of prisons and the construction of law courts.

TSURUGA HARBOR WORKS.—It is understood that the next Japanese budget will provide the sum of 800,000 yen for the purpose of improving this harbor. The money will be expended during the next four years.

LIAO RIVER CONSERVANCY.—The Foreign Chamber of Commerce of Newchwang has recommended the imposition of a duty of one tael per thousand on imported goods, the proceeds to go to a fund to help defray the expenses of this work.

CHINESE PROPOSED NAVAL DOCKYARDS.—The latest from Peking is to the effect that Kiangnan, Foochow, Whangpoo and Weihaiwei have been selected as permanent sites for the naval stations by the Navy Board, and that until Weihaiwei is available, Chefoo might be utilized temporarily.

PUKET HARBOR IMPROVEMENTS.—The contract between the Tongkah Harbor Tin Dredging Company and the Siamese Government provides that the former excavate a dock and channel thereto 20 feet deep.

TONKIN RIVER IMPROVEMENTS.—An appropriation of $150,000 has been made for the use of the Public Works Department in repairing the damage by floods to the embankments of rivers.

SHANGHAI JAIL WORK SHEDS.—The expenditure of Tls. 18,219 for the construction of this building has been authorized. It will be built of grey brick and reinforced concrete. Convict labor will be used.

CHINA'S SENATE BUILDING.—The proposed senate building is estimated to cost Tls. 250,000 and its erection cover a period of three years.

SWATOW WATERWORKS.—A company has been formed with a capital of $600,000 for the purpose of providing a modern system of water supply for the city. The selection of the site for the reservoir and other plans have not been finally decided upon.

CONSERVING CHINESE WATERWAYS.—The Taotai of Hangchow has urged that every effort should be made to conserve the waterways in the Huchow, Chiahsing and Hangchow prefectures.

MANILA PAVING BLOCK CONTRACT.—The Cadwallader Gibson Lumber Company has secured the contract for the supply of 20,000 molave paving blocks to the city and 60,000 will be supplied by Jose de Keyser de Leon. The price does not exceed ₱151.80 per thousand.

MORO PUBLIC WORKS.—The budget for 1910 gives estimates for construction of buildings, ₱9,198; construction of roads and bridges ₱54,100; wharves and sea walls, ₱64,000.

CHINESE PROVINCIAL PRISONS.—The Ministry of Finance has granted the sum of Tls. 250,000 to be used in constructing and improving the prisons in the provincial capitals.

HANGCHOW PROVINCIAL BUILDING.—The construction of the new provincial assembly hall is progressing slowly.

SHIPBUILDING, MERCHANT MARINE, FISHERIES, ETC.

CHINA'S NAVAL MATTERS.—Interest in the development of the navy continues. The Naval Department requested the immediate appropriation of Tls. 1,000,000 and the Board of Finance has advanced Tls. 500,000 and will appropriate the balance by the end of the year. This will be used for the expenses of reorganization. In addition, the Board of Finance has appropriated a surplus sum of Tls. 1,800,000 provided by the Kiukian Customs for the fund. Native papers announce many contributions from the provinces. Hangchow, Tls. 1,000,000; besides yearly contributions; the Viceroys of the Maritime Provinces have pledged Tls. 12,000,000 in four yearly instalments; one prominent Chinese, Cheung Yeun-Chin of Hongkong, subscribed $200,000. The estimate of Tls. 18,000,000 for preliminary expenses covering a period of four years would seem to be subscribed. The tour of investigation of H. I. H. Prince Tsai Hsun and Admiral Sah was most satisfactory and there seems a general sentiment in support of the reorganization. The report on the proposed selection for proposed naval stations has not been made public.

JAPANESE NAVAL CONSTRUCTION.—The Japanese press reports that the admiralty has ordered three second class cruisers, one each to be built at the Kawasaki Dockyard and the Mitsu Bishi and the third at Sasebo. Each will have a displacement of 5,000 tons and a speed of 26 knots.

FLOWER BOAT DEDICATED TO THE LATE EMPRESS DOWAGER.—The sum of Tls. 30,000 was expended by the Imperial Household Department in the construction of a flower boat and the ceremony of burning it took place on August 30th.

HANKOW-CHUNGKIANG STEAMERS.—The Taotai at Chungkiang has interested Chinese merchants to the extent of Tls. 200,000 to make part payment on the cost of two steamers to ply between these two points. These vessels are expected from England next month.

FOOCHOW TYPHOON.—The terrible typhoon that visited the vicinity of this port is reported to have destroyed forty per cent of the native craft including over 50 cargo boats. It is estimated that over 2,000 natives lost their lives.

BRITISH NORTH BORNEO SHIPPING.—The report for 1908 shows that the total shipping for the year was 140,000 tons of which 40,643 tons were under the British flag and 72,866 under the German.

HONGKONG AND WHAMPOA DOCK COMPANY.—Engineer Commander Mark Rundle has been appointed First Assistant to the Chief Engineer at the Dockyard. Mr. Dyer, the expert, who overhauled the affairs of the Dock Company, has succeeded Mr. R. Mitchell as Chief Manager. Mr. W. Wilson is the new Work Manager and Mr. J. W. Graham will return soon to resume his position as Superintendent.

BRITISH CHINA STATION.—H. M. S. Minotaur is to relieve H. M. S. Alfred as flagship on the China Station. The Minotaur is a twin screw armored cruiser of 14,600 tons.

U. S. NAVAL CONSTRUCTION.—Messrs. Cramps and the New York Shipbuilding Company were the lowest tenders for the construction of two 26,000 tons battleships for the U. S. Government. Their prices were $4,450,000 and $4,675,000.

MANCHURIA FISHERIES.—The Board of Agriculture, Industry and Commerce is preparing a draft of a treaty with Japan for the purpose of regulating the Manchurian Fisheries.

NEW YANGTSZE TUG.—The trial run of a new tug, Shu Tung, constructed by Messrs. Thornycroft & Co., and put together at the Kiangnan Docks for the Szechuen Steam Navigation Co. was made last month and made an average of 11 knots.

KOREAN SHIPPING MONOPOLY.—An increase of over 30 per cent in rates is the result of an agreement between the Osaka Shosen Kaisha and the Nippon Yusen Kaisha by which these two companies control the shipping to Korea and North China.

AMUR RIVER SALMON FISHERIES.—Reports from Harbin are to the effect that the output of the fisheries for the year has been unprecedented and there is promise of a glut of the market.

TRANSATLANTICA COMPANY'S ACTIVITY.—A report from Shanghai is to the effect that this company is to extend its service to Manila, to include Shanghai as a port of call

PHILIPPINE SARDINES.—The organization of a company to establish a large sardine canning plant at Navotas, near Manila, is being agitated. The Philippines have an abundance of different varieties of the best quality of sardine.

NAVAL DOCKING RECORD.—The flagship Charleston of the U. S. Asiatic Squadron was docked, thoroughly scraped, cleaned, given two coats of paint and relaunched in nine hours, at Olongapo, last month.

NEW AUSTRALIAN SQUADRON.—It has been announced that this squadron will comprise one armored cruiser, three other cruisers, six destroyers and three submarines. They will be built in England.

JAPANESE SUBSIDIES.—The appropriations shown in next year's budget are as follows:

Nippon Yusen Kaisha.	Yen.
European service	3,210,000
North American service	500,000
Total	3,710,000
Toyo Kisen Kaisha.	
North American service	1,940,000
South American service	600,000
Total	2,540,000
Osaka Shosen Kaisha.	
Various services	1,000,000

NORTH GERMAN LLOYD REPORT FOR THE HALF YEAR.—The profit announced for the first half of the present year is £250,000 against profit for the corresponding term last year of £350,000. This company has entered into a combination with the Ellerton lines and arranged for through service between Europe and India at reduced rates.

MANILA CUSTOMS MOTOR BOAT.—The launch built in Hongkong to the order of the Manila Trading and Supply Company for the Philippines Customs made 14.75 knots on her trials in Hongkong. This vessel will be used for night patrol in Manila Bay.

SHANGHAI DOCK AND ENGINEERING COMPANY CONTRACTS.—This company has secured the contract for the construction of four steel self discharging barges from the Macao Government.

MINES, MINERALS AND THE METAL TRADE

BATAN COAL COMPANY OUTPUT.—This company is now prepared to deliver over 300 tons a day. The product has been found very satisfactory by the Quartermaster's vessels and the Bureau of Navigation and tests made by the naval authorities are satisfactory. On an extended run it was found that it required 23% more Batan than would be required of Australian coal. This difference in quantity does not offset by any means the difference in price.

JAPANESE CEMENT COMBINATION.—A project is on foot to form a guild to include twenty of the leading cement plants in Japan. The output of cement in Japan annually exceeds two million barrels.

TIMOR OIL FIELDS.—Hongkong capitalists are interested in the development of what is reported to be most valuable deposits of oil at this point. Machinery has already gone forward for testing purposes.

PEKING SYNDICATE MINES.—The output for the quarter ending June 30th amounted to 57,568 tons.

SHANGHAI COAL MARKET.—Of the million tons yearly consumed by Shanghai, 800,000 tons come from Japan and the balance from Kaiping and other Chinese coal mines. The import of Fushun coal has jumped from 20,000 tons to 100,000 tons.

GERMAN NAVAL CONTRACT.—A contract has been made by the German Government for the supply of Poshan coal to the vessels of the German East Asian station.

TUNGKWANSHAN MINE DEVELOPMENT.—Fifteen pieces of mining machinery arrived last month at Wuhu for installation in the above mine.

PHILIPPINE MINING ACTIVITY.—A group of gold mines situated near the Madison Gold Mining Company Group in Antimok, Benguet, was sold last month to San Francisco capitalists. The same interests have offered ₱1,000,000 for a tract of placer ground in the vicinity of the Paracale Gold Dredging Company's property. There is also a German Syndicate negotiating for the purchase of the famous Mancayan Copper Deposits in Lepanto province. Other syndicates are also investigating this valuable property. The Stanley Paracale Gold Dredging Company reports progress and will soon be prepared to operate in the best paying ground. The first few days' operations brought 45 ounces.

INDIA'S COAL OUTPUT.—The total output for the year amounted to 12,150,000 tons, an increase of about 15.5% compared with 1907.

AMUR RAILWAY GOLD FIELDS.—Recent discoveries of deposits in the Trans-Baikal region along the line of survey resulted in a stampede of railway employes. Fabulous tales of finds of big nuggets are being received.

SHAOPINGTAO IRON MINES.—A Japanese capitalist has applied to the Kwangtung Government for permission to develop iron deposits in that vicinity.

F. M. S. TIN EXPORTS.—The total export of tin for the first eight months of the present year amounted to 499,089 pikuls as compared with 537,132 in 1908.

MALAYA TIN DREDGING PROPRIETARY.—This corporation has secured a prospecting area in Malacca of eight miles carrying the right to lease 1,000 acres from the Straits Settlements.

THE GERMAN MINING COMPANY CONCESSION.—The Germans have offered to surrender the mining property at Maoshan to the Chinese Government for $476,000 gold.

OIL CARRYING TRADE.—The Toyo Kisen Kaisha has entered into a contract with the Hoden Oil Company to carry 60,000 tons yearly at the rate of 15 yen a ton.

THE NETHERLANDS INDUSTRIAL AND TRADING COMPANY.—This company which controls the oil industry at Balik Papan, Dutch Borneo, is prepared to store 60,000 tons of oil at this port. The equipment consists of 15 petroleum tanks, each having a capacity of 4,000 tons. The steamers of the Royal Packet line are equipped with oil burners and call here for their supply of fuel.

KOREAN MINING.—Japanese Concessions granted since the opening of the mineral lands to exploitation number 600, of which 300 are for gold deposits. The royalties paid last year amounted to yen 60,000, while the royalty due on all concessions amounted to yen 760,000. There is prospect of many concessions being revoked. The French Syndicate, which has been operating with a capital of yen 10,000,000, has been taking out yen 500,000 worth of gold annually.

BURMA MINES, LTD.—The board of directors of this company is planning to increase the plant so as to smelt 5,000 tons of ore and slag monthly. This equipment will include a large water jacketted blast furnace, additional blower, engine, new charge hoists and scales with two extra boilers, and an electric lighting plant. The output of the mine for the month of August was 2,500 ounces of silver and 528 ounces of lead.

BURMA OIL INDUSTRY.—There are nine companies with a combined capital of $22,700,000 engaged in the extraction or refining of petroleum in Burma. The unrefined oil produced during the year 1907 amounted in value to nearly 3,000,000 dollars gold. The exports of by-products include candles to the value of $486,771 and of wax $547,411.

AN CH'I COAL AND IRON MINES.—A native company is being organized in Amoy with a capital of $600,000 to develop deposits in this district, situate about 100 miles from Amoy.

MESSRS. SALE & FRAZAR, LTD.—This enterprising company will remove its headquarters to a new site opposite the Nippon Yusen Kaisha's Head Office in Tokyo. Their shipping office will remain in Yokohama, while the several departments for the sale of railway material, machinery, steel and metals, etc., will be located in the new building in Tokyo.

CHI YING CHOW SILVER DEPOSITS.—A native company with a capital of $50,000 has been organized under the style name of the Tung Yi Silver Mining Company, Ltd., for the purpose of developing these deposits.

TIBETAN GOLD MINES.—Reports from Siningfu are to the effect that the Tibetans have driven the miners away from the deposits at Tsahpali. Work has been stopped.

RIGO BAY PLACER DEPOSITS.—Mr. Bode, a well-known mining expert, returned last month from Riga Gulf where he has been making an extensive investigation of deposits there. He reports tests showing as high as 40 cents gold and will make a thorough investigation with more effective equipment. Most of the ground has been located. Riga Gulf is located on the opposite side of the range from Paracale.

FINANCIAL AND MISCELLANEOUS

NETHERLANDS INDIA DEFICIT.—The Dutch Budget for the colonies shows a deficit of 24,000,000 florins for 1910. This has resulted from provision for exceptional expenditure.

CHINESE DEFICIT.—The Board of Finance announces that the total estimated revenues will not exceed Tls. 90,000,000, while the expenditure will reach Tls. 125,000,000. Imperial sanction has been given to a memorial recommending the establishment of a national debt by the issue of premium bonds.

EXPORT DUTY ON MANCHURIAN COAL.—The China-Japan Agreement fixed the export duty on Fushun coal at 16 sen a ton so as to conform to the rate charged on Kaiping.

DROUGHT AND LOCUSTS IN SHANGTUNG.—Consul Gracey of Tsingtau reports that on account of the continued drought, the wheat crop will not return one-eighth of the regular product. Enormous swarms of locusts have also invaded South Shangtung and are destroying everything before them.

BURMA SUGAR REFINERY COMPANY.—This new company has been organized with a capital of $324,400 for the purpose of sugar growing and or engaging in the refining industry. The importation of sugar for the year 1908 amounted to 22,232 tons, while the area under cultivation in Burma was 13,452 acres producing 30,000 pounds of cane an acre. The Government is aiding the new project.

INVESTIGATE CHINESE BANKS.—The Viceroy of Nanking has directed the Taotai of Shanghai to investigate and report on the financial standing of all the Chinese banks in Shanghai.

MITSUI INTERESTS REORGANIZE AS JOINT STOCK COMPANIES.—The Mitsui Bussan Kaisha and the Mitsui Bank have been reorganized as joint stock companies, each with a capital of yen 20,000,000. This new arrangement takes effect November 1st.

ENCOURAGING COMMERCE WITH TIBET.—The Board of Agriculture, Industry and Commerce has issued instructions to the viceroys and governors to afford merchants going to Tibet every protection and to reduce the duties on goods taken with them at least 40%.

PHILIPPINE SUGAR SHIPMENTS.—The shipments for September from Iloilo to the United States amounted to 19,827,054 kilos.

PHILIPPINE POSTAL SAVINGS DEPOSITS.—At the end of August the total deposits amounted to ₱1,459,049.97.

BURMA RUBBER GROWING INDUSTRY.—The report for the year ending June, 1908, shows an area of over 11,000 acres under cultivation an increase of 32% compared with previous year.

GOLD FOR JAPAN.—The s. s. *China* carried $1,000,000 in gold for Japan on her last trip outward.

OSAKA INSURANCE.—The companies of this city have agreed to raise fire rates 20%.

TOBACCO WAR IN KOREA AND MANCHURIA.—The Japanese Monopoly Bureau is preparing to compete with the British American Tobacco Company by the establishment of a big factory at Seoul and another at Inkao.

HAWAII SUGAR PRODUCTION.—The estimates for the 10 months preceding August 1st show the production for that period to be 530,000 tons.

ARTESIAN WELLS AND THE DEATH RATE.—As a result of the boring of artesian wells in the provinces of the Philippines the death rate in the towns thus supplied has been reduced from 50% to 70%.

RUBBER SOARS.—A London dispatch received at Kuala Lumpur announced that No. 1 Plantation brought nine shillings the latter part of September.

BUTU KAWAN RUBBER AND COCONUT PLANTATIONS.—This is another new company with a capital of £80,000 organized to acquire the Batu Kawan Estate in the Province of Wellesley, S. S., and to grow rubber, sugar and coconuts.

MALAY STATES PLANTATION AND INVESTMENT COMPANY.—The prospectus of this company with a capital of $150,000 to acquire a thousand acres of jungle land is published.

TSINGTAU CUSTOMS.—The customs income from this port rose from Tls. 72,000 in 1899 to more than Tls. 1,000,000 in 1909.

PHILIPPINE FORESTRY.—The virgin forest area in the Philippines comprises 40,000 square miles or about 25,000,000 acres with an estimated stand of at least 203,200,000,000 board feet of fine lumber.

CENTRAL BANK OF KOREA.—The total capital of this institution was oversubscribed when the lists closed on September 6th. There were but 69,600 shares allotted and the applications numbered 20,516,694 according to a Japanese exchange.

COMMERCIAL BANK AT NINGPO.—This institution opened its doors for business on September 13 and many depositors were recorded the first day.

SCHOOL OF ENGINEERING AT PORT ARTHUR.—The Kuantung Government has published regulations governing the establishment of this institution. It is the purpose of the projectors to provide courses in mechanical engineering, electric engineering and metallurgy, each to take four years to complete.

TONKIN WOOD MINES.—The discovery of a buried forest of fine timber in a high state of preservation makes an unique and paying industry in Upper Tonkin. The wood is said to be imperishable.

SAIGON RICE EXPORT.—The estimated export of rice from Cochin-China this year is placed at 1,600,000 tons.

F. M. S. RUBBER EXPORT.—The amount of rubber exported from the F. M. S. during the first eight months of 1909 was 3,447,338 lbs. against 1,900,536 lbs. for the corresponding period of last year, an increase of 1,546,802 lbs.

ELPHINSTONE ESTATE, LTD.—Advices from Singapore are to the effect that this company has issued a prospectus, the capital being $550,000 to purchase and develop what is known as the Heawood Estate.

TAICHING BANK IN MONGOLIA.—Success in its operation of branches in Urga has induced the authorities to increase its operations by establishing several more branches in Mongolia and information is being secured as to the most desirable locations.

JAPANESE SECOND TREASURY DEBENTURES REDEMPTION.—The Official Gazette publishes the announcement of the Minister of Finance that yen 20,000,000 of these debentures would be redeemed October 30th. This will leave a balance of yen 58,700,000 to be paid. The October payment will make in all yen 40,000,000 redeemed this year.

RATANUI RUBBER ESTATE, LTD.—The capital of this company is fixed at £35,000 and its purpose is to acquire the Ratanui Estate situate in Telok Anson, Perak, and to cultivate rubber.

JAPAN'S EXPENDITURE IN KOREA.—The annual expenditure to which Japan is pledged represents yen 25,000,000 annually.

CHINA INDUSTRIAL BANK AT KIAOCHOW.—A branch office of this bank has been opened at Kiaochow.

JAPAN'S SAVINGS.—The deposits in the post office savings bank of Japan has reached the yen 100,000,000 mark.

KOREAN TRADE.—The exports from Korea for the eight months of the present year amounted to yen 24,336,678 and the imports yen 9,979,248. This is a decrease of almost yen 6,000,000 in exports compared with the previous corresponding term.

HONGKONG'S AMERICAN TRADE.—The exports from the United States to Hongkong for the year ending June 30th amounted to $7,267,802, a falling off of $1,700,000.

KROEWOEK JAVA PLANTATIONS, LTD.—The prospectus of this company with a capital of £70,000 has been issued of which £42,500 has been privately subscribed. The balance is offered.

JAPAN'S RICE CROP.—The unprecedented crop of 273,000,000 bushels is the report received from Japan for the present season.

PHILIPPINE SUGAR PLANTERS' ASSOCIATION.—This body convened at Bacolod, Negros, on October 15th for the purpose of discussing matters affecting the sugar industry in the Philippines.

*LONDON, ENGLAND, METAL MARKET

**The following are (September 10) prices of metals:—

		£	s.	d.		£	s.	d.
COPPER								
*Tough cake and Ingot		61	10	0	..	62	10	0
*Best Selected		62	0	0	..	63	0	0
*Electrolytic		62	10	0	..	63	0	0
*Sheets and sheathing		72	0	0	..	—		
*Flat bottoms		75	0	0	..	—		
STANDARD	†Cash	58	15	3	..	—		
	†Three Months	59	12	6	..	—		
*Copper tubes, seamless per lb.		0	0	8½	..	—		
*Lake		63	10	0	..	64	0	0

* Less 3½ per cent. † Net.

ALLOYS.								
BRASS: Wire		0	0	6¾	..	—		
,, Tubes (solid drawn)		0	0	6⅞	..	—		
,, Sheets		0	0	6⅞	..	—		
TIN.								
English ingots, f. o. b.		135	0	0	..	135	10	0
,, bars		136	0	0	..	136	10	0
,, refined		137	0	0	..	137	10	0
Straits	Cash	133	17	6	..	—		
	Three months	138	2	6	..	—		
Australian spot					..	—		
Banka (in Holland)	Cash	136	18	9	..	—		
	Three months	137	11	3	..	—		
LEAD.								
Spanish or soft foreign		12	18	9	..	12	15	0
English pig, common		12	17	6	..	13	0	0
,, L. B		13	5	0	..	—		
,, sheet and bar lead		13	17	6	..	—		
,, pipe		14	7	6	..	—		
,, red		15	15	0	..	—		
,, white		17	10	0	..	—		
,, patent shot		15	15	0	..	—		
SPELTER.								
Silesian ordinary brands		22	15	0	..	23	0	0
,, special brands		23	5	0	..	23	5	0
English Swansea		23	5	0	..	23	5	0
Sheet zinc		24	15	0	..	—		

§ In our issue of August 28 these quotations were given as £23 5s. to £22 15s., they should have read £22 15s. to £23 5s.

ANTIMONY.								
Antimony		28	0	0	..	30	0	0
,, Crude		13	0	0	..	14	0	0
,, Ore (basis 50%)		7	10	0	..	8	10	0
QUICKSILVER.								
Flasks, 75 lbs. warrants		8	5	0	..	—		

MANGANESE. Ore, c.i.f., U. K. ports.	Per unit.				Per unit.*		
1st quality, 50 per cent. and upwards	0	0	9	..	—		
2nd quality, 47 per cent. to 50 per cent.	0	0	8	..	—		
3rd quality, 40 per cent. to 47 per cent.	0	0	7	..	—		

* Unit corresponds to 1 per cent.

ALUMINIUM.	Per ton.				Per ton.		
98-99 per cent.	72	10	0	..	75	0	0
NICKEL.	Per ton.				Per ton.		
98-99 per cent. guaranteed	170	0	0	..	175	0	0

PLATINUM.

Per oz. Troy, 99s. nominal and subject to negotiation.

**Mining Journal*

HEMP STATISTICS, 30th SEPTEMBER, 1909.

(Courtesy of C. S. NICHOLSON, *Secretary, Manila Chamber of Commerce.)*

EXPORT OF HEMP, SEPTEMBER, 1909.

Date	*Vessel*	*London*	*L'pool*	*Atlantic U.S.*	*Pacific East & California*	*Continent*	*Australia*	*Other Pts.*	*Total Bales*
1909	Forward:—	174,120	94,449	389,257	81,408	39,901	11,837	23,573	814,545
Sept. 1	Keemun				2,300				2,300
" "	Carmarthenshire.	5,029				2,702			7,731
" "	Kaifong ..... Cebu	3,514							3,514
" 3	Yuensang		250			150		15	415
" 4	Zafiro		250			646		150	1,046
" 5	Lothian			22,275					22,275
" 7	Isla de Panay		300			50			350
" "	Nikko Maru						720		720
" 10	Loongsang							300	300
" 12	Henrick Ibsen				500				500
" 13	Prinz Waldermar.						600		600
" 16	Dakotah				4,055				4,055
" 17	Yuensang	250				237		100	587
" 18	Prinz Sigismund.							173	173
" "	Eastern							100	100
" 19	Zafiro	1,546							1,546
" 21	Atlas			21,730					21,730
" "	Tean					550			550
" 23	Teucer		2,300						2,300
" "	Siberia			28	700				728
" "	Suvéric				12,237				12,237
" 25	Rubi	454				1,000		200	1,654
" "	Yawata Maru							123	123
" "	Loongsang	4,012				450		350	4,812
" 26	Montrose (Cebu).			25,258					25,258
" "	Taiyuan						480		480
" 28	Courtfield	1,800	2,431			750			4,981
" "	Taming	2,157				850			3,007
		192,882	99,980	458,548	101,200	47,286	13,637	25,084	938,617

FAR EASTERN STOCKS AND QUOTATIONS

Courtesy of Messrs. Kadoorie & Co., Hongkong, October, 1909.

STOCK.	WHEN ESTABLISHED	CAPITAL	NO. OF SHARES	VALUE	PAID UP	RESERVE	AT WORKING ACCOUNT	DATE	LAST DIVIDEND.	Approximate Yield per cent per annum at Present Quotation	CLOSING QUOTATIONS (Oct. 15, 1909)
BANKS.											
Hongkong & Shanghai Banking Corporation	1865	$15,000,000	120,000	$125	$125	*g* £1,500,000; *s* $15,250,000; *i* $250,000	$2,001,819	30-6-09	Interim of £2 for account 1909, @ ex 1/9½ = $22.72	4	995 sales £91 10/-
National Bank of China, Ld.	1891	£699,475	10) 99,925	£7	£6	*c* £4,099 $300,000	4 $30,552	31-12-08	$2 (London 3/6) for 1903	....	$65 buyers
MARINE INSURANCES.											
Canton Insurance Office, Ld.	1881	$2,500,000	10,000	$250	$50	$1,560,000; *j* $232,757; *u* $411,990	Nil.	31-12-07	$14 for 1907	7½	$175 sellers
North China Insurance Co., Ld.	1863	£150,000	10,000	£15	£5	*g* £125,000; *s* Tls. 150,000; *u* Tls. 303,747; *f* Tls. 118,277	Tls. 160,512	30-6-08	Interim of 7/6 for ⅝ 1907	5½	Tls. 115
Union Ins. Society of Canton, Ld.	1867	$3,100,000	12,400	$250	$100	*s* $3,000,000; *g* £90,000; *f* $192,248; *j* £105,249; *u* $682,609	$2,464,901	31-12-08	Final of $17 making $47 for 1907, and interim of $30 for account 1908	5¾	$850 sellers
Yangtsze Ins. Association, Ld.	1862	$1,200,000	12,000	$100	$60	$1,000,000; *j* $294,405; *f* $199,234	$707,637	31-12-08	$12 and bonus $3 for 1907	7½	$232½
FIRE INSURANCES.											
China Fire Ins. Co., Ld.	1870	$2,000,000	20,000	$100	$20	$1,000,000; *x* $438,668; *f* $13,802	$375,314	31-12-08	$6 and bonus $2 for 1907	7	$114 buyers
Hongkong Fire Ins. Co., Ld.	1868	$2,000,000	8,000	$250	$50	$1,438,173	$368,711	31-12-08	$27 for 1907	8	$375 buyers
SHIPPING.											
China & Manila Steamship Co., Ld.	1882	$750,000	1) 30,000	$25	$25		*Dr.* $21,538	31-12-08	$1 for 1906	....	$8½ sellers
Douglas Steamship Co., Ld.	1883	$1,000,000	20,000	$50	$50	$264,638; *s* $99,067	Nil.	30-6-08	$2½ for year ending 30-6-08	7	$33
Hongkong, Canton & Macao Steamboat Co., Ld.	1865	$1,200,000	80,000	$15	$15	*s* $250,000; *d. i.* $617,500; *f* $119,267; $ 22,645	$21,170	30-6-09	Interim of $1½ for a/c 1909	7½	$31½ sellers
Indo-China Steam Navigation Co., Ld. (Preferred)	1882	*m* £600,000	2) 60,000	£5	£5	*i* £148,891	£15,162	31-12-08	6/- for 1907 on pref. shares only at ex. 1/9 11/16, $3.154	....	$60
Do. Do. (Deferred)			2) 60,000								
"Shell" Transport & Trading Co., Ld.	1898	£ 2,000,000	2,000,000	£1	£1	£720,000; *i* £100,000	£192,994	31-12-08	Final of 2/- for 1908 & int. of 1/- for a/c 1909	....	73/- buyers
"Star" Ferry Co., Ld.	1898	$200,000	10,000	$10	$10	$65,000; *i* $48,980	$31,21	30-4-09	$1.00 50 cts. for year ended 30-4-09	4	$26
	1900		10,000	$10	$5					3½	$15
REFINERIES.											
China Sugar Refining Co., Ld.	1878	$2,000,000	20,000	$100	$100	*e* $350,000; *r* $56,848	*Dr.* $5858	31-12-08	$5 for year ending 31-12-08	3½	$145 buyers
Luzon Sugar Refining Co., Ld.	1882	$700,000	7,000	$100	$100	none	*Dr.* $135,893	31-12-08	$3 for 1897	....	$23
Perak Sugar Cultivation Co., Ld.	....	Tls. 350,000	7,000	Tls. 50	Tls. 50	Tls. 100,000	Tls. 9,173	31-8-07	Tls. 3½ for year ending 31-8-08	....	Tls. 332½ buyers
MINING.											
Chinese Engineering & Mining Co., Ld.	1901	£1,000,000	1,000,000	£1	£1	*d* £175,000; *h* £12,289	£11,556	28-2-07	Int. of 1/6 for year ending 29-2-09 (Coupon No. 12)	7	Tls. 19½ buyers
Raub Australian Gold Mining Co., Ld	1892	£200,000	150,000	£1	18-10	£4,873	*Dr.* £2,191	31-3-08	No. 12 of 1/- = 48 cents	....	$8 sellers
			50,000	£1	£1						
DOCKS, WHARVES AND GODOWNS.											
Fenwick (Geo.), & Co., Ld.	1889	$450,000	*z* 18,000	$25	$25	$42,986	*Dr* $7,421	31-12-08	$1½ for year ending 31-12-06	....	$12
Hongkong & Kowloon Wharf & Godown Co., Ld.	1886	$3,000.000	60,000	$50	$50	$550,000; *t* $26,806; *z* $40,000	$30,102	31-12-08	Final of $1½ making $3½ for 1907	—	$63 sa. & b.
Hongkong & Whampoa Dock Co., Ld.	1866	$2,500,000	50,000	$50	$50	*i* $88,442; *v* $221,000	$345,162	30-6-09	Interim of $1½ for account 1909	12½	$55 sellers
Shanghai Dock & Engin'g Co., Ld.	1906	Tls. 5,570,000	13) 55,700	Tls. 100	Tls. 100	Tls. 1,000,000; Tls. 697,257	Tls. 6,261	30-4-09	Final of Tls. 2½ for year ending 30-4-1909	6½	Tls. 75½ buyers
Shanghai & Hongkew Wharf Co., Ld.	1902	Tls. 3,600,000	36,000	Tls. 100	Tls. 100	*b* Tls. 50,000; *r* Tls. 125,000	Tls. 6,261	31-12-08	Final of Tls. 6 making Tls. 10 for 1908	6½	Tls. 140 sellers
LANDS, HOTELS AND BUILDINGS.											
Anglo-French Land Investment Co., Ld.	1906	Tls. 2,500,000	3) 25,000	Tls. 100	Tls. 100	Tls. 35,000	Tls. 4,314	29-2-09	Tls. 6 for year ending 29-2-09	5¾	Tls. 105 buyers
Central Stores, Ld.	....	$751,845	16) 50,123	$15	$15	*n.* $1,000	$24,641	31-12-08	$1.20 on old & 60 cts. on first new issue	....	$17½ buyers
Hongkong Hotel Co., Ld.	1866	$600,000	12,000	$50	$50	$648,975	$19,272	30-6-09	Interim of $2,40 old and 40 cents new for a/c 1909	—	$72½ $43½ new i
Hongkong Land Investment & Agency Co., Ld.	1889	$400,000 $5,000,000	8,000 50,000	$50 $100	$25 $100	*r* $140; *e* $250,000	$26,475	31-12-08	Interim of Tls. 3½ for a/c 1909	6½	$104 sellers
Humphreys' Estate & Finance Co., Ld.	1887	$1,500,000	150,000	$10	$10	*i* $222,172; 20) $43,261	$5,486	31-12-08	60 cents for 1908	6½	$9½ sellers
Kowloon Land & Bldg. Co., Ld.	1889	$300,000	6,000	$50	$30	none	$278	31-12-08	$1½ for 1908	5	$30 sellers
Shanghai Land Investment Co., Ld.	1888	Tls. 3,900,000	78,000	Tls. 50	Tls. 50	Tls. 1,523.045; *e* Tls. 300,000	Tls. 142,404	31-12-08	Interim of Tls. 3 for 1909	6½	Tls. 120 sellers
West Point Bldg. Co., Ld.	1889	$625,000	12,500	$50	$50	none	$1,968	31-10-08	Interim of $2 for a/c 1909	8¾	$43 sellers
COTTON MILLS.											
Ewo Cotton Spinning & Weaving Co., Ld.	1895	Tls. 1,000,000	5) 20,000	Tls. 50	Tls. 50	Tls. 150,000; Tls. 45,939	Tls. 8,820	31-7-08	Tls. 5 for year ended 31-10-08	3½	Tls. 143½ buyers
Hongkong Cotton Spinning, Weaving & Dyeing Co., Ld.	1901	$1,250,000	125,000	$10	$10	*e* $20,000	$9,553	30-9-08	50 cents for year ending 31-7-08	6	$6½ sales

FAR EASTERN STOCKS AND QUOTATIONS—(CONTINUED.)

STOCK.	WHEN ESTABLISHED	CAPITAL.	NO. OF SHARES.	VALUE.	PAID UP.	RESERVE	AT WORKING ACCOUNT.	DATE.	LAST DIVIDEND.	Approximate Yield per cent. per annum at Present Quotation.	CLOSING QUOTATIONS
International Cotton Manufacturing Co., Ld.	1895	Tls. 750,000	6) 10,000	Tls. 75	Tls. 75	Tls. 175,000	Tls. 8,372	31-12-08	Tls. 6 for year end. 30-9-06 (8%).	---	Tls. 87
Laou-kung-mow Cotton Spinning & Weaving Co., Ld.	1895	Tls. 800,000	8,000	Tls. 100	Tls. 100	none	Tls. 4,829	31-12-08	Tls. 4 for 1908	---	Tls. 111
Soy Chee Cotton Spinning Co., Ld	1895	Tls. 1,000,000	2,000	Tls. 500	Tls. 500	/ Tls. 31,172	Tls. 15,911		Tls. 50 for 1906	---	Tls. 460
MISCELLANEOUS.											
Bell's Asbestos Eastern Agency, Ld.	1895	£5,377.10s	11) 8,604	12/6	12/6	£1,500	£682	31-12-08	15% for 1908	---	$10
China-Borneo Co., Ld.	1903	$720,000	8) 60,000	$12	$12	$40,000	Nil.	31-12-08	$1.20 for 1908	9	$13 sellers
China Light & Power Co., Ld.	1901	$550,000	50,000	$10	$10	none	$61,138	28-2-07	60 cents for year ending 28-2-06	---	$6½
Do. do. Special Shares	1907		17)50,000	$1	$1						
China Provident Loan & Mortgage Co., Ld.	1898	a $1,250,000	7) 125,000	$10	$10	$100,000	$3,407	31-12-08	80 cents for 1908	8½	$9½ sales
Dairy Farm Co., Ld.	1896	$300,000	40,000	$7½	$6	l $10,000 / $8,000	$48	31-7-08	$1.30 for year ending 31-7-08	7¾	$17¾ buyers
Green Island Cement Co., Ld.	1889	$4,000,000	400,000	$10	$10	$13,000	$3,756	31-12-08	Final of 50 cts. making 90 cts. for 1908	10	$8 sellers
H. Price & Co., Ld.	1907	$120,000	19) 15,000	$10	$10	$5,000	$670	31-12-08	80 cents for year ending 31-12-08	8	$12
Hongkong Electric Co., Ld.	1889	$600,000	60,000	$10	$10	none	$5,195	29-2-09	$1.00 and bonus 20 cents for year ending 29-2-09	6	$20
Hongkong Ice Co., Ld.	1881	$125,000	5,000	$25	$25	k $150,000	$7,616	31-12-08	Interim of $2 for a/c 1909	10	$182½ sellers
Hongkong Rope Manufacturing Co., Ld.	1883	$600,000	$60,000	$10	$10	$20.000	$8,790	31-12-08	Interim of $1 for a/c 1909	8½	$23
Maatschappij tot Mijn-, Bosch- en Landbouwexploitatie in Langkat	1902	Gs. 2,500,000	25,000	Glds. 100	Glds. 100	Tls. 547,500 / i Tls. 63,914 / 21 Tls. 547,500	Tls. 316,682	31-10-08	Third quarterly dividend of Tls. 12½ for % 1909	4	Tls. 830 sellers
Peak Tramways Co., Ld.	1907	$750,000	25,000	$10	$10	$20,000	$2,204	30-4-09	80 cents on fully paid shares & 8 cents on $1 paid shares for year ending 30-4-09	6	$13½
Do. (New)			50,000	$10	$1					3	$1.30
Philippine Co., Ld.	1904	$750,000	75,000	$10	$10	none	Ps. 18.640	31-12-08	None	---	$9 buyers
Robinson Piano Co., Ltd.	1900	$200,000	22) 4,000	$50	$50	$5,000	$61,138	31-8-08	6% for ½ year ending 30.9.07	---	$50
Shanghai-Sumatra Tobacco Co., Ld.	1902	Tls. 600,000	9) 30,000	Tls. 20	Tls. 20	Tls. 24,820 / w Tls. 75,000	Tls. 5,250	31-10-08	Final of Tls. 5 making Tls. 8 for 1908	4¼	Tls. 107 sales
South China Morning Post, Ld.	1903	$150,000	6,000	$25	$25	none	Dr. $56,602	31-8-08	None	---	$23½ buyers
Steam Laundry Co., Ld.	1902	$100,000	20,000	$5	$5	none	$236	31-5-08	40 cents for year ending 30-5-08	7	$5¼
Union Waterboat Co., Ltd.	1905	$500,000	15) 50,000	$10	$10	none	$172	31-12-08	60 cents for year-end. 31-12-1908	5	$10½ sellers
United Asbestos Oriental Agency, Ld.	1896	$100,000	10,000	$10	$4	$46,000	$342	31-5-09	60 cents per ordinary share for year ending 31-5-09	6¼	$12½ buyers
Watson (A. S.) & Co., Ld.	1886	$900,000	90,000	$10	$10	$300,000 / e $25.000	$2,613	31-12-08	Final of 30 cents making 60 cents for 1908	6¼	$8 sellers
Weismann Limited	1904	$17,500	175	$100	$100	$6,700	$13	31-7-07	10 per cent for year endg. 31.7.07.	---	$150
William Powell, Ld.	1901	$105,000	15,000	$7	$7	none	$782	30-6-09	Final of 30 cents making 80 cents for year ending June 30th 1906	---	$4 sellers
RUBBERS											
Anglo-Malay Rubber Co., Ltd.	1905	£150,000	1,500,000	2/-	2/-	....	....	---	Interim of 12½% for a/c 1909	---	14/6 buyers
Balgownie Rubber Estate, Ltd.	1905	†† $200,000	‡‡ 20,000	†† $10	†† $10	$7,400	$11,205	31-3-09	25% for year ending 31-3-09	---	$71 s. [S'pore]. 60/- sellers
Castlefield Rub. Ld., [fully pd.]	1906	£35,000	27) 32,650	£1	£1	none	....	---	----------	---	---
Damansara (Selangor) Rub Co.	1906	£110,000	25 110,000	£1	£1	nil.	£2,220	31-12-08	Final 9% making 12% for 1908	---	82/6 buyers
Golconda Malay Rubber Co.	1907	£80,000	26 80,000	£1	£1	nil.	nil.	---	----------	---	60/- sellers
Highland & Lnd. Para R. Co.	1906	£310,000	=181,454	£1	£1						67/6 sellers
Do. Do. [fully paid]			123,546	£1	15/-		£8,784	....	....	15% for year ending 31-12-09	---	Nominal
Do. Do. [partly paid]											
Kamuning (Perak) Rb. & Tin Co.	1909	£200,000	950,000	2/-	1/-						
do do A Shares			105,000	£1	£1						4/- sellers
do do B Shares											
Kuala Lumpur Rubber Co., Ltd.	1896	£180,000	180,000	£1	£1	nil.	nil.	....	----------	---	Nominal.
Linggi Plantations, Ltd. (ord.)	1905	£100,000	+900,000	2/-	2/-	....	1,820	---	----------	---	71/- buyers
Do. Do. (7% pref.)	Reconst 1905		10,000	£1	£1	£4,000	....	....	3% for year ending 30-6-08	---	24/- buyers
Ragalla Rubber Co., Ltd. (ord.)	1906					....	....	....	Interim of 40% = 9d for a/c 1909.	---	Nominal
Do. Do. (8% pref.)		†† $250,000	22,500 ††	$10 ††	$10	....	....	....	7% for year 1908	---	$29 b. S'pore
			2,500 ††	$10 ††	$10						Nominal
Ledbury Rubber Estates Ltd.	1908	£125,000	§ 60,000	£1	£1	....	....	....	----------	---	52/6
Do. Do. (contrib.)			§ 40,080	£1	7/6				----------	---	35/6 sales
Sagga Rubber Co. Ld.	1903	£200,000	24) 20,000	£1	£1	nil.	nil.		----------	---	100/- sellers
Sandycroft Rubber Co.	1904	$100,000	1,000	$100	$100	$20,000	$1,275	31.1.08	Interim of 30% for 1909	---	$710 buyers
Sekong Rubber Co., Ld.	1908	£80,000	27) 80,000	£1	12/6	nil.	nil.	---	----------	---	20/- buyers
Shelford Rubber State Ld.	1906	£65,000	65,000	£1	£1	nil.	£836	31.12.08	3% for 1908	---	36 sellers
Singapore & Johore Rb. Co., Ld.	1903	$250,000	2,500	$100	$100	nil.	nil.	---	----------	---	$325 sellers
Sungei Choh, Rb. State Co., Ld.	1907	£45,000	45,000	£1	15/-	nil.	nil.	---	----------	---	41/- buyers
Sungei Kapar Rubber Co.	1906	£110,000	23) 110,000	£1	£1	nil.	£3,448	31.12.98	----------	---	70/-

LOANS AND DEBENTURES.	AGENTS FOR THE LOAN.	AMOUNT OF LOAN.	PAR VALUE.	OUTSTANDING BONDS.	WHEN PAYABLE.	CLOSING QUOTATIONS.	
China Government, 7 per cent. Silver Loan 1886 E.	Hongkong & Shanghai Banking Corporation.	Tls. 767,200	Tls. 250	1914	Mar. 31st and Sept. 30th each year until Mar. 31st, 1917	par.	Plus interest
Hongkong Hotel Company, Ltd., 6 per cent. Mortgage Debentures of 1899 †		$750,000	$500	§ all	Half yearly, June 30th and December 31st	par	
Shanghai & Hongkew Wharf Company, Ltd., 6 per cent. Debentures of 1902		Tls. 543,900	Tls. 100	.....	Half yearly, June 30th and December 31st	Tls. 103¼	
Astor House Hotel Company, Ltd., 8 per cent. Debentures of 1903		Tls. 500,000	Tls. 100	.....	Half yearly, January 1st and July 1st	102½	
Chinese Engineering & Mining Co., Ltd., 6 per cent. Debentures of 1903 †	.....	£500,000	¶	£431,960	Half yearly, June 30th and December 31st	par.	
International Cotton Manufacturing Co., Ltd. 7% Debentures of 1901	Russo Chinese Bank	Tls. 500,000	Tls. 100	||	Half yearly, March 31st and Sept. 30th	Tls. 97½.	

a Authorized capital $2,000,000.
b Building Reserve Account.
c Capital Reserve Fund.
d Depreciation Fund.
e Equalization of Dividend Fund.
f Exchange and Investment Fluctuation Account.
g Gold Reserve Fund
h Exchange Reserve Account.
i Insurance Fund.
j Reinsurance Fund.
k Contingencies Account.
l Legal Reserve Fund.
m Authorized Capital
n Sinking Fund.
o Raw Sugar Reserve Account.
p Premium on New Issue.
q Boiler Repairs and Renewals Account
r Repairs and Renewals Account.
s Silver Reserve Fund.
t Depreciation and Repair Account
u Underwriting Suspense Account.
v Special account
w Special Works Fund.
x Extra Reserve Fund.
y 72,560 owned by the Company.
z 7,200 shares unissued.
1 4,000 shares unissued.
2 First issue of 60,000 of which 10,411 unallotted.
3 5,000 shares unissued.
4 4,480 shares unissued.
5 5,000 shares unallotted.
6 1,616 shares unallotted.
7 5,000 shares unissued.
8 14,000 shares unissued.
9 17,000 shares unissued.
10 40,453 shares actually issued.
11 7,688 shares actually issued.
12 4,200 shares unissued.
13 500 shares unissued.
14 399 shares unissued.
15 22,277 shares unissued.
16 10,000 shares unissued.
17 Special shares are entitled to half of the profits.
18 Capital contributed by Chinese Government Kuping Tls. 5,000,000.
19 12,000 issued only.
20 Typhoon and Floods Insurance Fund
21 Special Cash Reserve.
22 1000 shares unissued.
23 10,000 shares unissued.
24 4595 part paid shares.
25 7,500 shares unissued.
26 10,000 shares unissued.
27 2,350 shares unissued.
Based on last year's dividend.
** Based on present dividend.
|| Only Tls. 134,000 taken up.
§ 216 held by the Company.
¶ In certificates of £20 and £100.
‡ Redeemable in 10 years, or at option of Company, the Company giving 6 months notice.
† Redeemable at par at rate of £10,000 per annum from 31st December 1903 to 31st December 95.
*** Redeemable at par on 30th June, 1915.
Dr. Deficit.
†† Singapore dollars.
‡‡ 4,880 shares unissued.
× 16,756 shares unissued.
§§ 25,000 shares unissued.
— 4140 shares unissued.

ADDITIONAL SHANGHAI SHARE QUOTATIONS

STOCK	CLOSING QUOTATIONS	HIGHEST AND LOWEST PRICES DURING THE WEEK	CAPITAL	NO. OF SHARES	VALUE	PAID UP	RESERVE	LAST DIVIDEND	WHEN PAID
Oriental Consolidated Mining Co., Ltd	27s. 6d.		G. $5,000,000	500,000	G. $10	G. $10	none	Interim of Gold .50 for 1909	June 30, 1909
Vulcan Iron Works, Limited	Tls. 400		Tls. 500,000	1,000	Tls. 500	Tls. 500	—	Tls. 50 for year ended 31.8.06	Nov. 1, 1906
Yangtsze Wharf & Godown Co., Limited	Tls. 125 nominal		Tls. 250,000	2,500	Tls. 100	Tls. 100	Tls. 50,000	Tls. 15 for 1908	April 1, 1909
Wei-hai-wei Land & Building Co., Limited	Tls. 10 nominal		Tls. 91,850	3,674	Tls. 25	Tls. 25	—	—	—
Union Estate & Investment Co., Limited	Y. 105 sales		Y. 1,000,000	10,000	Y. 100	Y. 100	—	First year	—
Hotel des Colonies Company, Limited	Tls. 9 sellers		Tls. 112,500	9,000	Tls. 12½	Tls. 12½	Tls. 29,783	6% for 1907	May 29, 1908
Kalee, Limited	$100 nominal		$100,000	4,000	$100	$100	—	2% for 1908	July 3, 1909
Anglo-German Brewing Co., Limited	$85 buyers		$100,000	4,000	$100	$100	none	$7 for 1907	Mar. 12, 1908
Butler Tile Works, Limited	Tls. 50 nominal		Tls. 60,000	1,200	Tls. 50	Tls. 50	—	Tls. 3 for year ending 31.3.09	June 8, 1909
Major Bros., Limited	Tls. 40 sellers		Tls. 300,000	6,000	Tls. 50	Tls. 50	—	—	—
Oriental Ice Company, Limited	Tls. 50		Tls. 130,000	2,600	Tls. 50	Tls. 50	—	First year	—
Scharffs Oil and Bone Mills, Ltd	Tls. 50		Tls. 200,000	4,000	Tls. 50	Tls. 50	—	First year	—
Shanghai Ice Company, Limited	Tls. 13 sales		Tls. 200,000	8,000	Tls. 25		—	3% for 1907	Mar. 14, 1908
Shanghai Oil Co., Limited	Tls. 25		Tls 175,000	7,000	Tls. 25	Tls. 25	—	First year	—
Campbell, Moore & Co., Limited	$10 buyers		$12,000	1,200	$10	$10	$9,000	$3 for 1905	Apr. 2, 1906
Dunning & Company, Limited	$50 sellers		$100,000	2,000	$50	$50	—	$5 year ending 28.2.08	Apr. 15, 1908
J. Llewellyn & Co, Limited	$50 buyers		$72,000	1,200	$60	$60	—	7.20 for 1908	Apr. 1, 1909
Lane, Crawford & Company	$137½ sales		$250,000	2,500	$100	$100	—	Final of 3% making 6% for 1908	June 8, 1909
Moudon (E. L.) Limited	Tls. 6 buyers	137½	Tls. 225,000	9,000	Tls. 25	Tls. 25	none	—	—
S. Moutrie & Company, Limited	$48 sellers		$250,000	5,000	$50	$50	—	$4 for year ended March 31, 1908	June 13, 1908
Weeks & Company, Limited	$26½ buyers		$400,000	20,000	$20	$20	$40,000	Final of $1.20 making $2 for 1908	May 20, 1909
Dominion Rubber Co., Limited	Tls. 4		Tls. 225,000	22,500	Tls. 10	Tls. 4	—	First year	—
Kalumpong Rubber Co., Ltd	Tls. 42 sellers		Tls. 700,000	14,000	Tls. 50	Tls. 50	** Tls. 11,844.48	6% for 1907	Nov. 29, 1908
Senawang Rubber Estates Company, Limited	Tls. 100		Tls. 250,000	2,500	Tls. 100	Tls. 100	—	—	—
Senawang Rubber Estates Company, New	Tls. 75				Tls. 100	Tls. 75			
Tebong Rubber and Tapioca Estate, Limited	20s.		£76,000	76,000	£1	£1	—	—	—
Eastern Fibre Co., Limited	Tls. 10 nominal		Tls. 300,000	30,000	Tls. 10	Tls. 10	—	1; ex. 2/6=Tls. 0.40 for 1908	August 5, 1909
Shanghai Mercury, Limited	Tls. 50 buyers		Tls. 195,500	2,100	Tls. 50	Tls. 50	—	Final of 6% making 10% for year ended 30.4.08	June 29, 1908
Shanghai Mutual Telephone Co., Limited	Tls. 62 buyers		Tls. 675,000	13,500	Tls. 50	Tls. 50	—	Tls. 3 for 1907	June 28, 1908
China Export, Import & Lumber Company, Limited	Tls. 78 nominal		Tls. 350,000	500	Tls. 100	Tls. 50	—	10 p. c. for year ending 29.2.08	May 1, 1908
China Printing Co., Limited	Tls. 42½		Tls. 750,000	1,500	Tls. 50	Tls. 50	—	7% 1908	Apr. 18, 1909
Dallas Horse Repository Co., Ltd	Tls. 25 nominal		Tls. 250,000	5,000	Tls. 50	Tls. 50	—	—	—
Hirano Mineral Water Co., Ltd.	Y. 15 sales		Y. 125,000	5,000	Y. 25	Y. 25	—	10%=yen 2½ for year ending 30th Sept. 08 Y. 1.20 for year ended Feb. 29	Apr. 26, 1909
E. E. Porter & Co., Limited	$50		$100,000	2,000	$50	$50	—	$6 for 1907	Apr. 22, 1908
Shanghai Electric & Asbestos Company, Limited	$20 sales		$125,000	5,000	$25	$25	—	8% for year ended Feb 28, 09	June 21, 1909
Shanghai Electric Construction Company, Limited	£11 buyers	£11	£300,000	30,000	£10	£10	—	First year	—

DEBENTURES

LOANS		PRICE—PLUS ACCRUED INTEREST	AMOUNT OF LOAN	OUTSTANDING	NOMINAL VALUE	RATE OF INTEREST	WHEN PAYABLE
Shanghai Municipal Debentures	1892	Tls. 92½	Tls. 50,000	Tls. 45,400	Tls. 100	5 %	June & Dec.
do	1893	,, 96	,, 125,000	" 32,000	" 100	5½ ,,	Do
do	1894	,, 104½	,, 105,000	" 60,000	" 100	6 ,,	Do
do	1895	,, 92½	,, 115,000	" 32,600	" 100	5 ,,	Do
do	1896	,, 92½	,, 140,000	" 131,800	" 100	5 ,,	Do
do	1897	,, 92½	,, 268,800	" 268,400	" 100	5 ,,	Do
do	1898	,, 104½	,, 300,000	" 60,000	" 100	6 ,,	Do
do	1900	,, 96	,, 33,900	" 31,700	" 100	5½ ,,	Do
do	1901	,, 104½	,, 250,000	" 200,000	" 100	6 ,,	Do
do	1902	,, 104½	,, 150,000	" 150,000	" 100	6 ,,	Do
do	1903	,, 104½	,, 490,500	" 490,500	" 100	6 ,,	Do
do	1904	,, 104½	,, 214,500	" 214,500	" 100	6 ,,	Do
do	1905	,, 104½	,, 320,000	" 320,000	" 100	6 ,,	Do
do	1907	,, 104½	,, 250,000	" 250,000	" 100	6 ,,	Do
Chinese Imperial Government Loan	1886 E	,, 250	,, 767,200	" 354,400	" 250	7 ,,	Mar. & Sept
Shanghai Land Investment Co., Debentures	1890	,, 102	,, 250,000	" 250,000	" 100	6 ,,	May & Nov.
do	1892	,, 96	,, 250,000	" 250,000	" 100	5½ ,,	June & Dec.
do	1894	,, 101	,, 250,000	" 250,000	" 100	6 ,,	Mar. & Sept.
do	1896	,, 92½	,, 250,000	" 250,000	" 130	5 ,,	June & Dec.
do	1900	,, 102	,, 250,000	" 250,000	" 100	6 ,,	April & Oct.
do	1901	,, 102	,, 250,000	" 250,000	" 100	6 ,,	June & Dec.
do	1901	,, 96	,, 100,000	" 100,000	" 100	5 ,,	May & Nov.
do	1902	,, 102	,, 400,009	" 400,000	" 100	6 ,,	June & Dec.
do	1905	,, 102	,, 250,000	" 250,000	" 100	6 ,,	Do
Shanghai Waterworks Co., Debentures	1894	,, 103	,, 100,000	" 100,000	" 100	6 ,,	Mar. & Sept
do	1896	,, 92½	,, 100,000	" 100,000	" 100	5 ,,	June & Dec.
do	1899	,, 103	,, 50,000	" 50,000	" 100	6 ,,	Do
do	1900	,, 103	,, 100,000	" 100,000	" 100	6 ,,	Mar. & Sept.
do	1902	,, 103	,, 100,000	" 100,000	" 100	6 ,,	Do
do	1903	,, 103	,, 100,000	" 100,000	" 100	6 ,,	June & Dec.
Perak Sugar Cultivation Co., Debentures	1902	,, 101	,, 200,000	" 200,000	" 100	7 ,,	April & Oct.
Shanghai Gas Co., Debentures	1897	,, 92½	,, 100,000	" 100,000	" 100	5 ,,	Do
do	1899	,, 102	,, 1,000,000	" 100,000	" 100	6 ,,	May & Nov.
do	1900	,, 102	,, 2,000,000	" 200,000	" 100	6 ,,	June & Dec.
Shanghai and Hongkew Wharf Co., Debentures	1902	,, 100½	,, 799,800	" 799,800	" 100	6 ,,	Do
Astor House Co., Debentures	1905	,, 103	,, 500,000	" 500,000	" 100	7 ,,	Do
British Municipal Council, Hankow	1901	Sh. ,, 105	H'kow Tls 100,000	H'kow Tls 100,000	" 100	7 ,,	June & Dec.
Shanghai Club Debentures	1907	,, 96	Tls. 170,000	Tls. 170,000	" 100	6 ,,	Do
Country Club Debentures		,, 97	,, 139,000	" 139,000	" 100	6 ,,	Do
do	1907	,, 97	,, 92,000	" 92,000	" 100	6 ,,	Do
Lane Crawford & Co., Debentures	1907	,, 100	,, 110,000	" 110,000	" 100	7 ,,	Mar. & Sept.
Anglo-French Land Debentures	1908	,, 102½	,, 250,000	" 250,000	" 100	6 ,,	June & Dec.

SINGAPORE SHARE QUOTATIONS

(COURTESY MESSRS. FRASER & CO., BROKERS, SINGAPORE, SEPTEMBER, 1909)

Date of Formation	Capital	Capital paid up	No. of Shares Issued	Issue Value	Paid up	Reserve	Last Dividend	Name	Buyers.	Sellers.
								MINING		
1903	$300,000	300,000	30,000	10	10	.....	12% for year ending 31-3-09	Belat Tin Mining Co., Ltd.	5.75	6.00
1907	$300,000	225,000	22,500*v*	10	10	.....	.....	Bruang Ltd.	5.75	6.00
1901	$600,000	600,000	60,000	10	10	25,000	10% for year ending 30-4-08	Bruseh Hydraulic Tin Mining Co., Ltd.	8.00	8.25
1903	£500,000	444,769	444,769*a*	1	1	.....	.....	Duff Development Co., Ltd.	5.55	5.75
1907	$400,000	375,000	37,500*b*	10	10	.....	.....	Kanaboi, Ltd.	1.25	1.50
1901	£60,000	60,000	60,000	1	1	.....	2-6 interim for 1908.	Kinta Tin Mines, Ltd.	11.00	11.25
1906	£100,000	100,000	100,000	1	1	.....	.....	Kledang Tin Mining Co., Ltd.	1.50	1.75
1905	$150,000	99,000	9,900*c*	10	10	6,485.68	35% for year ending 31-12-07	Kuantan Tin Mining Co., Ltd.	3.50	3.75
1906	£120,000	120,000	120,000	1	1	.....	.....	Lahat Mines Ltd.	10.25	10.50
1906	£30.000	30,000	30,000	1	1	.....	.....	Malaya and Siam Corporation, Ltd.	....	5/-
1906	$450,000	450,000	45,000	10	10	.....	.....	Malacca Tin Dredging Co., Ltd.	2.25	2.50
1906	£250,000	179,500	500,000*e*	5/-	5/-	.....	.....	Pahang Consolidated Co., Ltd	10/-	10/6
1907	£100,000	80,000	80,000*f**	1	1	.....	.....	Pengkalen, Ltd	7.50	7.75
1904	£120,000	100,000	100,000*d*	1	1	6,000	45% for year ending 30-6-07	Pusing Lama Tin Mines, Ltd.	3.50	4.00
1907	$450,000	300,000	30,000*d**	10	10	.....	.....	Rahman Hydraulic Tin, Ltd.	....	6.00
1905	£27,000	27,000	27,000	1	1	.....	1/- interim during 1907	Rambutan, Ltd.	7.75	8.00
1892	£200,000	191,250	50,000	1	1	4,873	1/- paid January 1901	Raub Aust. Gold Ming. Co., Ltd.	6.75	7.00
			150,000	1	18/10	.....	1/- " " "	" " " *Contributory*	6.25	6.50
1905	£40,000	40,000	40,000	1	1	.....	.....	Redhills Tin Mining Co., Ltd.	1.50	2.00
1900	$110,000	110,000	22,000	5	5	.....	3% for year ending 22-1-09	Royal Johore Tin Mining Co., Ltd.	1.25	1.50
1907	$550,000	500,000	50,000*l**	10	10	.....	.....	Salak South, Ltd.	5.10	5.25
1907	£80,000	80,000	80,000	1	1	.....	.....	Sempam Tin Mines, Ltd.	2.50	3.25
1906	$850,000	850,000	85,000	10	10	25,000	5% interim for 1909.	Serendah Hydraulic Tin Ming. Co., Ltd.	7.50	8.00
1899	$230.000	230,000	23,000	10	10	.....	3% for ½ year ending 31-12-08	Sipiau Tin Co., Ltd.	....	2.75
1909	$200,000	$150,000	15,000	10	10	.....	.....	Sungei Gau Tin Mining Co., Ltd.	7.50	8.00
1907	£90,000	70,000	70,000*w*	1	1	.....	1/6 interim for 1909	Tekka, Limited.	14 25	14.75
1906	£150,000	150,000	150,000	1	1	.....	.....	Tongkah Harbour Tin Dredging Co., Ltd.	15.50	16.00
1902	£160,000	160,000	160,000	1	1	.....	5/- during 1907.	Tronoh Mines, Ltd.	10.25	10.50
								RUBBER		
1909	$120,000	105,000	105,000*e*‡	1	1	.....	.....	Alor Gajah Rubber Estate, Ltd	1.50	2.00
1905	£150.000	150,000	1,500,000	2/-	2/-	.....	12½% interim during 1909.	Anglo-Malay Rub. Co., Ltd.	15/-	15/6
1905	$200.000	151,200	15,120*c**	10	10	7,400	25% for year ending 31-3-09.	Balgownie Rub. Estate, Ltd.	59.00	60.00
1904	£30.000	20,187 10/-	19,000	1	1	.....	10% for year ending 31-12-09	Batu Caves Rub. Co., Ltd.	5.7.6	5.11.0
			4,750*f*	1	5/-	.....				
1906	£80,000	70,000	70,000*s**	1	1	.....	5% for year ending 31-3-09.	Batu Tiga (Selangor) Rubber Co., Ltd.	1.18.0	2.0.0
1909	£100,000	66,135	57,816	1	1	.....	.....	Bukit Kajang Rubber Estates, Ltd.	2.4.0	2.5.0
			22,184*x**	1	7/6	.....	.....	" " " *Contributory*	1.3.6	1.4.6
1907	£30,000	22,500	18,000*k**	1	1	.....	.....	Bukit Lintang Rubber Estates, Ltd.	2.8 6	2.12.6
			6,000	1	15/-	.....	.....	" " " *Contributory*	2.2.6	2.5.0
1903	£70.000	66.700	66,700*g*	1	1	2,000	55% for year ending 31-12-08	Bukit Rajah Rubber Co., Ltd.	9.0.0	9.5.0
1906	£35.000	32,650	32,650*c*‡	1	1	.....	.....	Castlefield (K.) R. Estate, Ltd.	2.16.0	2.17.6
1909	£225,000	175,000	1,750,000*d*‡	2/-	2½-	.....	.....	Chersonese (F.M.S.) Estates, Ltd.	2/6	3/-
1904	£16,000	16,000	10,000	1	1	.....	25% interim for 1909.	Cicely Rubber Estates Co., Ltd.	10.10.0	10.12.6
			6,000	1	1	.....	26½% interim for 1909.	" " " " 5% *Pref*	10.12.6	10.15.0
1905	£75,000	58.507	55,007*i*	1	1	1,000	20% interim for 1909	Consolidated Malay Rub. Estates, Ltd.	6.11.6	6.12.6
			7,000	1	10/-	.....				
1906	£110,000	102,500	102,500*r**	1	1	.....	12% for year ending 31-12-08	Damansara (Selangor) Rubber Co., Ltd.	4.6.0	4.8.6
1909	£45,000	37,828	37,828*z*‡	1	1	.....	.....	Edinburgh Rub. Estates, (Selangor) Ld.	2.0.0	2.1.0
1909	$550,000	475,000	475,000*f*‡	1	1	.....	.....	Elphinstone Estates, Ltd.	2.00	3.00
1907	£80,000	70,000	70,000*y**	1	1	.....	.....	Golconda Rubber Co., Ltd.	2.10.0	2.12.6
1906	$680.000	632,000	28,000	17	17	.....	.....	Hevea Rubber Planting Co. Ltd.	15.00	16.00
			12,000	17	13	.....	.....	" " " " *Contributory*	11.00	12.00
1906	£310,000	290,416 10/-	181,454*j*	1	1	8,784	7½% interim for 1909.	Highlands & Lowds. Para Rub. Co., Ltd.	3.11.0	3.12.6
			123,546	1	17/6	.....	" " " "	" " " " *Contributory*	3.8.0	3.10.0
1904	£50,000	30,000	30,000*a*‡	1	1	.....	.....	Inch Kerneth Rubber Estates, Ltd.	6.8.0	6.9.0
1909	£200,000	182,500	950,000*q*	2/-	1/-	.....	.....	Kam. (P.) R. & T. Co., Ltd. "A" Shares	4/7½	4/9
			105,000	1	1	.....	.....	" " " "B" "	....	nom.
1905	£50.000	36,500	23.000	1	1	.....	.....	Kapar Para Rubber Estates, Co., Ltd.	4.5 0	4.7.6.
			27,000	1	10/-	.....	.....	" " " " *Contributory*	....	nom.
1906	£180,000	180,000	180,000	1	1	.....	3% for year ending 30-6-08.	Kuala Lumpur Rubber Co., Ltd.	3.3.6	3.4.0
1907	£100,000	81,000	90,000*o**	1	18/-	.....	7% for year ending 30-12-08	Labu (F.M.S.) Rubber Co., Ltd. *Contrib.*	2.16.6	2.17.6
1907	£320,000	232,395	197,395*z*	1	1	3,000	10% for year ending 31-12-08.	Lanadron Rubber Estates, Ltd.	4.17.6	5.0.0
			70,000	1	10/-	.....	.....	" " " *Contributory*	3.12.6	3.15.0
1906	*Gs* 135,000	135,000	580	250	250	.....	.....	Langen Rub. and Cocoanut Co., Ltd.	295.00	300.00
1908	£125,000	75,000	fl. 000*m**	1	1	.....	.....	Ledbury Rubber Estates Ltd.	2.3.6	2.4.0
			40,000	1	7/6	.....	.....	" " " *Contributory*	1.5.6	1.6.6
1895	£100,000	98,324 8/-	883,244*a**	2/-	2/-	4,000	40% interim for 1909.	Linggi Plantations Ltd., *Ordinary*	1.3.10½	1.4.0
			10.000	1	1	.....	7% for year ending 31-12-08.	" " " 7% *Pref*	....	nom.
1907	£140,000	107,000	107,000*k*	1	1	.....	3% for year ending 31-12-08.	London Asiatic R. & Produce Co., Ltd.	2.14.0	2.15.6
1906	£300,000	300,000	185,000	1	1	.....	7½% for year ending 31-12-07	Malacca Rubber Plants., Ltd. *Ordinary*	7.10.0	7.12.6
			115,000	1	1	.....	" " " " " "	" " " 7½% *Pref*	7.10 0	7.12.6
1909	$400,000	400,000	80,000	5	5	.....	.....	Pajam Limited.	6.50	7.50
1903	£30.000	22,500	225,000*l*	2/-	2/-	.....	25% interim during 1909	Pataling Rubber Estates Synd. Ltd.	1.2.0	1.2.6
1909	$500,000	450,000	45,000	10	10	.....	.....	Pegoh, Limited.	17.50	17.75
1906	£85,000	85,000	85,000	1	1	.....	10% for year ending 31-3-09.	Perak Rubber Plantations, Ltd.	3.12.0	3.15.0
1906	$250,000	225,000	22,500	10	10	.....	.....	Ragalla Rubber Co., Ltd. *Ordinary*	22.00	23.00
		25,000	2,500	10	10	.....	.....	" " " 8% *Preference*	22.00	23.00
1909	£60,000	37,500	15,000	1	1	.....	.....	Rembia Rubber Estates Ltd. *Ordinary*	....	nom.
			45,000	1	10/-	.....	.....	" " " 6% *Cum. Pref*	15/6	15/9
1904	£20,000	16,943 8/-	20,000*x*	1	1	.....	.....	Sagga Rubber Company, Limited.	4.15.0	5.0.0
1904	$100,000	100,000	1,000*g**	100	100	20,000	30% interim for 1909.	Sandycroft Rubber Co., Ltd.	695 00	700.00
1907	£100,000	80,400	48,000*p**	1	1	.....	.....	Seafield Rubber Co., Ltd.	2.17.6	3.0.0
			48,000	1	13/6	.....	.....	" " " *Contributory*	2.10.0	2.11.0
1898	£30,000	30,000	300,000	2/-	2/-	3,000	25% interim for 1909.	Selangor Rubber Co., Ltd.	1.15.6	1.16.0
1906	£65.000	65.000	65,000	1	1	.....	3% for year ending 31-12-08	Shelford Rubber Estate, Ltd.	1.14.0	1.14.6
1909	£120,000	81,250	62,500*p*	1	1	.....	.....	Singapore Para Rubber Estates, Ltd.	....	nom.
			37,500*t**	1	10/-	.....	.....	" " " " *Contributory*	1.6 6	1.7.6
1905	$500,000	500,000	5,000	100	100	.....	.....	Singapore Rubber Co., Ltd.	212.50	215.00
1903	$250,000	250,000	2.500	100	100	.....	.....	Singapore & Johore Rub. Co., Ltd.	295.00	300.00
1909	$250,000	60,000	10,000*g*‡	10	6	.....	.....	St. Helena Rubber Coy., Ltd.	12.00	13.50
1906	£175.000	174 615	174,615*n**	1	1	.....	4½% for year ending 31-3-09.	Straits Settlements (B.) Rub. Co., Ltd.	1.10.0	1.10.6
1907	£45.000	36,900	12,000*b*‡	1	1·	.....	.....	Sungei Choh Rub. Estate, Ltd. *Fully pd.*	....	nom.
			32,400	1	15/-	.....	.....	" " " " *Contributory.*	1.11.6	1.12.6
1906	£110,000	00,000	100 000*h**	1	1	.....	.....	Sungei Kapar Rubber Co., Ltd.	3.5.0	3.6.6
1907	£70,000	49,875	14,000	1	1	.....	.....	Sungei Salak Rubber Co., Ltd.	2.2.6	2.3.6
			41,000	1	17/6	.....	.....	" " " *Contributory*	2.0.0	2.1.0
1904	£50,000	45,710	41,920*m*	1	1	.....	.....	Sungei Way (Selangor) Rub. Co., Ltd.	2.19.0	3.2.6
			7,580	1	10	.....	.....	" " " *Contributory*	....	nom.
1907	£200,000	154,000	154,000*q**	1	1	.....	5% for year ending 31-8-08.	United Serdang (S.) R. Plantations, Ltd.	3 12.6	3.17.6
1904	£60,000	50,600	506,000*n*	2/-	2/-	.....	80% for year ending 31-3-09.	Vallambrosa Rubber Co., Ltd.	1.4.6	1.5.6
								GENERAL		
1907	$1,500,000	1,065,150	25,000*i**	10	10	.....	10% for year ending 31/12/08.	Eastern Smelting Co. Ltd.	....	13.00 u.
			116,450	10	7	.....	10% for year ending 31-12-08.	" " "	10.15	10.25
1898	$225,000	225,000	4,500	50	50	150,000	15% & 2½% bon. for yr. end. 31-12-08.	Fraser & Neave, Ltd.	145.50	146.50
1905	$2,400,000	2,400,000	18,000	100	....	75,000	2½% for year ending 31-10-08	Howarth Erskine, Ltd.	78.00	80.00
			6,000	100	....	.....	7% for year ending 31-10-08	" " 7% *Pref*	97.50	100.00
1896	$1,000,000	1,000,000	6,000	100	100	600,000	10% for year ending 31-12-07	Katz Brothers, Ltd. *Deferred*	....	120.00
			4,000	100	100	.....	8% " " " " "	" " 8% *Cum. Pref*	....	nom.
1901	$34,000	34,000	3,400	10	10	.....	20% for year ending 31-10-08	Maynard & Co., Ltd.	22.50	23.50
1899	$875,000	875,000	6,000	100	100	175,000	5% for year ending 31/12/08.	Riley, Hargreaves & Co., Ltd.	57.50	60.00
			2,750	100	100	.....	7% for year ending 31/12/08.	" " " " 7% *Pref.*	97.50	102.50
1903	$600,000	250,000	25,000*o*	10	10	.....	10% for year ending 30-6-09.	Singapore Cold Storage Co., Ltd	9.50	9.75
1891	$30.000	30,000	600	50	50	23,000	10% for year ending 31-7-08	Singapore Dispensary Ltd.	55.00	57.50
1903	£400,000	400,000	400,000	1	1	.....	.....	Singapore Electric Tramways, Co., Ltd.	4/-	4/3
1884	$200,000	200,000	2,000	100	100	35,000	10% during 1907.	Straits Ice Co., Ltd.	....	150.00
1890	$500,000	498,000	4,980*c**	100	100	760,000*t*	5% interim for 1909.	Straits Steam Ship Co., Ltd.	180.00	185.00
1887	$3,000,000	3,000,000	300,000	10	10	130,000*u*	10% & 5% bon. for half yr. end.	Straits Trading Co., Ltd.	52.00	52.25
						1,222,409	31-3-09			

					Debentures
a	11,282 unissued 43,949 6% debenture	*m*	500 to be issued to employees	*d**	15,000 unissued
b	2,500 unissued	*n*	94,000 unissued.	*e**	20 "
c	5,100 "	*o*	35,000 "	*f**	20,000 "
d	20,000 "	*p*	20,000 "	*g**	221 7½% Debentures
e	54,500 £1 Prefs. issued 45,500 £1 " unisd. 100,000 5/- Ord. "	*q*	175,000 unissued "A" shares	*h**	10,000 unissued
		t	Sundry Reserves.	*i**	8,550 unissued
f	6,250 unissued	*u*	Sundry Reserves.	*k**	6,000 "
g	3,300 "	*v*	7,500 unissued	*l**	5,000 "
i	12,993 "	*w*	20,000 "	*m**	25,000 "
j	5,000 "	*x*	4,595 part-paid shares	*n**	385 forfeited
k	£40,000 6% Debentures 33,000 unissued	*z*	52,605 unissued	*o**	10,000 unissued
l	75,000 unissued	*a**	16,756 "	*p**	4,000 "
		*c**	4,880 "	*q**	46,000 "
				*r**	7,500 "
				*s**	£10,000 Convertible 6%

*t**	200,000 unissued		
*u**	5,000 "		
*v**	5,000 "		
*w**	20,000 "		
*x**	20,000 "		
*y**	10,000 "		
*z**	7,172 "		
a‡	20,000 "		
b‡	600 "		
c‡	2,350 "		
d‡	500,000 "		
e‡	15,000 "		
f‡	75,600 "		
g‡	15,000 "		

DEBENTURES

Howarth Erskine, Ltd. 6%	$ 600,000	....	par.
Riley, Hargreaves & Co., Ltd. 6%	284,000	1%	5% p.
Singapore Electric Tramways, Co., Ltd. 5%	£350,000	....	....
Singapore Municipal 15%	1,878,000	3%	6% p.
" " 4½%	1,600,000	2%	5% p.
" " 4%	602,900	10%	8% d.

YOKOHAMA SHARE QUOTATIONS

COURTESY A. C. HUTTON POTTS, SHARE AND GENERAL BROKER, YOKOHAMA, OCTOBER, 1909.

STOCKS.	CAPITAL.	NO. OF SHARES.	ISSUE VALUE.	AMOUNT PAID UP.	RESERVE FUND.	AT WORKING ACCOUNT OR CARRIED FORWARD.	DATE.	LAST DIVIDEND.	FOR TERM.	CLOSING QUOTATION.
Brett & Co., Ltd.	-Y- 28,000	2,800	-Y- 10	-Y- 10			31-12-08	12½%	for 1 year	10 Sellers
Club Hotel, Ltd.	185,000	1,850	100	100	3,000	-Y- 768.96	31-3-08	7%	for 1 year	70 Nominal.
Grand Hotel, Ltd.	500,000	5,000	100	100	10,000		30-6-09	4%	for ½ year	100 Nominal.
Helm Bros., Ltd.	186,000	3,720	50	50	25,000	-Y- 6,395.55	31-12-08	17½%	for 1 year	80 Sales.
Langfeldt & Co., Ltd.	100,000	2,000	50	50	10,000	6,296.63	30-6-09	5%	for ½ year	45 Sellers.
C. Nickel & Co., Ltd. †	500,000	20,000	25	25		1,782.10	31-10-08	20%	for 1 year	45 Buyers
Yokohama Engine and Iron Works *	500,000	10,000	50	50	50,000	-Y- 29,421.19	31-5-08	10%	for 1 year	70 Sales
Oriental Hotel, Ltd., Ordinary	250,000	3,000	50	50	306,090.49		31-8-07	12%	for 1 year	50 Nominal.
Oriental Hotel, Ltd., Preference		2,000	50	50				8%	for 1 year	50 Nominal.
The Union Estate and Investment Co., Ltd. ‡	1,000,000	10,000	100	100	6,000.00	1,753.03	30-9-08	7%	for 1 year	100 Nominal.

† 285,000 unissued.
‡ 475,000 unissued.
*-Y- 390,000 issued.
110,000 unissued.

DEBENTURE LOANS.	AMOUNT OF LOAN.	FACE VALUE OF DEBENTURES.	RATE OF INTEREST.	INTEREST PAYABLE.	CLOSING QUOTATION.
Brett & Company, Limited.	11,500.00	100.00	7%	1 June and 1 Dec.	95 Sales.
Yokohama United Club.	250,000.00	100.00	7%	30 June and 31 Dec.	100 Sales.
C Nickel & Company, Limited.	50,000.00	100.00	8%	1 May and 1 Nov.	110 Sellers.
Oriental Hotel, Limited.	250,000.00	100.00	8%	1 April and 1 Oct.	100 Sellers.
Union Estate and Investment Co., Limited.	250,000.00	100.00	6%	30 June and 31 Dec.	95 Sellers.

JAPANESE STOCKS.	FACE VALUE.	AMOUNT PAID UP.	LAST DIVIDEND.	DIVIDEND PAYABLE.	CLOSING QUOTATION.
Bonds & Debentures.					
Exchequer Bonds 2nd issue.	-Y-100	-Y-100	5%	March and Sept.	-Y- 99.50
Exchequer Bonds 3rd issue.	100	100	5%	March and Sept.	,, 99.70
Consolidated Bonds (Seiri)	100	100	5%	June and Dec.	,, 96.30
War Bonds (Gunji)	100	100	5%	June and Dec.	,, 96.30
Imperial 5% Bonds	100	100	5%	March and Sept.	,, 96.20
Special 5% Bonds (issued 1906)	100	100	5%	June and Dec.	,, 96.30
Yokohama Water Works Bonds	100	100	6%	June and Dec.	,, 101.00
Yokohama City Public Loan Bonds	100	100	6%	March and Sept.	,, 98.00
Osaka City Harbour Construction Bonds	100	100	6%	June and Dec.	,, 101.00
Osaka City Public Loan Bonds	100	100	6%	June and Dec.	,, 101.00
Kawasaki Dock Yards Co.'s Debentures	100	100	7%	June and Dec.	,, 101.00
Tokyo Race Associations "	500	500	30%	June and Dec.	,, 110.00
Railways & Electric Trams.					
Tokyo Railway Company, Limited.	50	50	5 2|5%	June and Dec.	,, 76.60
Yokohama Electric Tramway Company, Limited.	50	50	6%	July and Jan.	,, 48.00
Keihin Electric Tramway Company, Limited.	50	50	6%	June and Dec.	,, 66.00
Southern Manchurian Railway Co., Ltd.	100	20	6%	June and Dec.	,, 40.00
Hanshin Electric Tramway Co., Ltd.	50	50	12%	May and Nov.	,, 127.00
Cotton Spinnings.					
Kanegafuchi Cotton Spinning Company, Limited.	50	50	14%	July and Jan.	,, 109.50
Fuji Gassed-yarn Company, Limited.	50	50	14%	July and Jan.	,, 97.95
Tokyo Cotton Spinning Company, Limited.	50	50	5%	July and Jan.	,, 45.00
Imperial Hemp Weaving Company, Limited.	50	50	12%	July and Jan.	,, 75.00
Nisshin Boseki Kabushiki Kaisha.	50	12½	5%	——	,, 15.15
Sugar & Beer Cos.					
Dai-nippon Sugar Refinery Company, Limited.	50	50	.....	May and Nov.	,, 16.00
Ensuiko Sugar Refinery Company, Limited	50	20	20%	June and Dec.	,, 39.50
Dai-nippon Beer Company, Limited.	50	50	12%	July and Jan.	,, 81.00
Kirin Brewery Company, Limited.	50	50	6%	July and Jan.	,, 50.50
Docks & Steamships.					
Yokohama Dock Company, Limited.	50	33	12%	June and Dec.	,, 61.00
Uraga Dock Company, Limited	50	50	.....	July and Jan.	,, 12.00
Kawasaki Dockyard Company, Limited	50	50	12½%	Feb. and Aug.	,, 54.00
Nippon Yusen Kaisha.	50	50	10%	May and Nov.	,, 82.00
Hokkaido Tanko S. S. Company, Limited.	50	50	14%	July and Jan.	,, 43.50
Miscellaneous					
Tokyo Electric Light Company, Limited.	50	50	12%	June and Dec.	,, 96.00
Tokyo Gas Company, Limited.	50	50	13%	July and Jan.	,, 100.80
Yokohama Union Electric Light Company, Limited.	50	50	14%	July and Jan.	,, 92.50
Fuji Paper Mills.	50	50	6%	June and Dec.	,, 37.00
Otaru Timber Company, Limited.	50	50	.....	March and Sept.	,, 13.50
Hoden Petroleum Company, Limited.	50	50	20%	April and Oct.	,, 87.10
Tokyo Rope Manufacturing Company, Limited.	50	50	18%	June and Dec.	,, 100.00
Japan Horse Improvement Company, Limited.	50	50	15%	March and Sept.	,, 6.00
Tokyo Stock Exchange Company.	50	50	15 1|5%	June and Dec.	,, 173.00
Osaka Electric Light Company, Limited.	50	50	16%	July and Jan.	,, 132.00
Kobe Electric Light Company, Limited.	50	50	14%	July and Jan.	,, 103.00

BANGKOK SHARE QUOTATIONS

(COURTESY MESSRS. EDWARDS & CO., BANGKOK, SIAM.)

NAME.	BUYERS.	SELLERS.	QUOTATION.	ESTABLISHED.	CAPITAL.	NO. OF SHARES.	ISSUE VALUE.	AMOUNT PAID UP.	RESERVE FUND	LAST DIVIDEND	WHEN PAID OR PAYABLE.
Siam Electricity Co , Ltd.	Tcs. —	Tcs. 370	Tcs. 370	1901	Tcs. 3,383,296	35,000	£ 10	£ 350,000	Tcs. 448,174.31	12% & 12½ T. bon.	Feb. 29, 1908
Paknam Railway Co., Ltd.	,, —	,, —	,, 185	1893	,, 400,000	5,000	Tcs. 80	Tcs. 400,000	,, 80,000	6% & 2 Tel. bonus for ½ year ending	Dec. 31, 1907
Siam Tramway Co., Ltd.	,, —	,, 150	,, 150	1905	,, 1,450,000	6250 Shares 7250 Deb. 1000 P. Shares	,, 100	,, 1,450,000	—	2%	Mar. 31, 1908 / Sept. 30, ,,
Meklong Railway Co., Ltd.	,, —	,, 105	,, 105	July 12, 1907	,, 2,230,000	22,300	,, 100	,, 2,230,000	17,316 22	—	—
Bangkok Manufact. Co , Ltd.	,, —	,, 130	,, 135	1898	,, 400,000	4,000	,, 100	,, 400,000	—	None	—
Howarth Erskine, Ltd.	,, —	,, —	,, 140	1905	$ 2,400,000	24,000	$ 100	$ 2,400,000	$ 40,000	5%	Oct. 31, 1908
Bangkok Dock Co., Ltd.	,, —	,, —	,, 150	1865	Tcs. 1,000,000	6,000	Tcs. 100	Tcs. 1,000,000	Tcs. 270,000 / 60,000	12½% & 2½ Bonus	Dec. 31, 1907
Siam Steam Packet Co.	,, —	,, 70	,, 70	1898	,, 190,000	2,625	,, 50	,, 131,250	,, 36,000	14%	Dec. 31, 1907
Siam Commercial Bank.	,, —	,, —	,, 1,100	1906	,, 3,000,000	3,000	,, 1,000	,, 3,000,000	,, 140,000	5%	Mar. 31, 1907
Menam Motor Boat Co., Ltd.	,, —	,, —	,, 100	1905	,, 200,000	2,000	,, 100	,, 125,000	—	—	—
Transport Co., Motor, Ltd.	,, —	,, 100	,, 100	1906	,, 200,000	4,000	100	£4, per Share	—	—	—
Jenderata Rubber Co *.	,, —	,, —	79		£ 17,580		£ 10				
Siam Steam Navigation Co., Ltd.	,, —	,, —	320		Tcs. 2,000,000		Tcs. 200				

*6 Calls paid

PHILIPPINE SHARE REPORT

JUNE 1ST, 1909

NAME	WHEN INCORPORATED	AUTHORIZED CAPITAL	ISSUE VALUE OF SHARE	NO. OF SHARES	SUBSCRIBED	PAID UP	RESERVE	WORKING %	DATE	LAST DIVIDEND	CLOSING QUOTATIONS
American Drug Store	1908	₱ 100,000	₱1,000	100	40	₱1,000	.....	₱ 5,000	Jan. 4, 1909..	.....	No Sellers.
*Banco Español Filipino	1851	3,000,000	200	15,000	8,439	200	₱225,000	.....	.....	7% for year 1908....	190 nom.
Benguet Consolidated Mining Co....	1903	2,000,000	2	1,000,000	495,000	2	.....	38,000	Feb. 2, 1909..	.....	No Sellers.
Benguet Commercial Co., Ltd.....	1908	200,000	10	20,000	7,360	10	.....	.....	.....	7% for year 1907	₱10.
Cadwallader-Gibson Lumber Co....	1908	1,000,000	100	10,000	8,650	100	.....	.....	.....	.....	No Sellers.
*Camote-Clayton Mining Co.....	1909	400,000	10	40,000	20,000	10	.....	.....	.....	.....	₱10.
*Compania Maritima.....	.....	1,018,000	200	5,090	5,090	200	.....	.....	.....	.....	₱40 buyers
*El Varadero de Manila.....	.....	350,000	100	3,500	3,500	100	.....	.....	.....	.....	Sellers 70
Export & Import Lumber Co.....	.....	200,000	200	1,000	1,000	200	.....	.....	.....	.....	No sellers.
*Fabrica de Hielo de Manila.....	.....	350,000	50	7,000	7,000	50	.....	.....	.....	18% for year 1908...	₱80 sellers
*Germinal Cigar Factory.....	.....	500,000	500	1,000	1,000	500	₱285,000	.....	.....	6% for year 1908 and 6% on capital.....	750 sellers
H. E. Heacock Co.....	1909	100,000	100	1,000	800	100	.....	.....	.....	First year.....	No sellers.
*Headquarters Mining Co. (Inc.)...	1908	600,000	10	60,000	35,000	10	.....	.....	.....	.....	₱10.
Insular Lumber Co.....	1907	2,000,000	200	10,000	9,000	200	.....	.....	.....	.....	No sellers.
Juan Seiboth Co., Ltd.....	1908	150,000	20	7,500	500	20	.....	.....	.....	First year.....	.....
*La Concha Button Factory.....	.....	75,000	100	750	750	100	.....	.....	.....	10% for year 1908...	₱110 sellers.
Lambert, Springer Co.....	1908	200,000	1,000	200	80	1,000	.....	.....	.....	.....	No sellers.
Luzon Stevedoring Co.....	1909	250,000	25	10,000	4,200	25	.....	.....	Sept. 15, 1909	15%.....	No sellers.
Mindanao Herald Publishing Co...	1907	15.000	100	150	75	100	.....	.....	Dec. 31, 1908.	½ of 1% interim for 1908	No sellers.
Newspaper Publishing Co.....	1907	400,000	100	4,000	3,740	100	.....	.....	.....	.....	.....
Walter E. Olsen Co., Inc.....	1909	500.000	100	5,000	2,033	100	.....	.....	.....	First year.....	No sellers.
Paracale Gold Dredging Co.....	1907	£10,000	£1	10,000	9,000	£1	.....	.....	.....	.....	£1.10 s.
Palomar Park Amusement Co.....	1908	300,000	.....	300,000	60,312	.50	.....	.....	.....	.....	₱1.
Phil. Hemp Machine Co., Ltd.....	1907	1,000,000	100	10,000	8,500	100	.....	.....	.....	.....	₱100
Philippine Publishing Co.....	1907	600,000	200	3,000	2,181	200	.....	.....	Mar. 1st, 1909	₱3 a share for 1908..	₱50
Port Banga Lumber Co.....	1908	100,000	100	1,000	934	100	None.	40,000	First Saturday in January..	None.....	No sellers.
The Philippine Gold Dredging Co...	1907	200,000	10	20,000	20,000	10	.....	.....	.....	.....	No sellers.
*Philippine Co., Ltd.....	.....	750,000	10	7,500	7,500	10	.....	.....	.....	.....	₱5 buyers.
Philippine Rosin & Turpentine Co..	.....	150,000	1	150,000	70,000	1	.....	.....	.....	First year.....	.....
Philippine Exploration Co.....	1908	2,000,000	10	200,000	90,000	10	.....	.....	.....	.....	No sellers.
The Rosenstock Pub. Co.....	1908	75,000	10	7,500	6,000	10	.....	.....	.....	.....	No sellers.
*San Nicolas Iron Works.....	.....	300,000	500	600	600	500	.....	.....	.....	.....	₱200 sellers.
San Mauricio Gold Mining Co.....	1908	4,000,000	200	20,000	.....	.....	.....	.....	.....	First year.....	No sellers.
Tarlac Railway Co.....	1906	150,000	100	1,500	1,500	100	.....	₱9,674.75	June 30, 1908.	.....	No sellers.
Union Hemp Machine Co.....	1909	50,000	10	5,000	2,600	10	.....	.....	.....	.....	No sellers
Zamboanga Cold Storage Co.....	1903	40,000	100	400	200	100	₱8,500	.....	May 1st, 1909.	20%.....	₱120.

* John T. Macleod's share list

PHILIPPINE BONDS

	DATED	AUTHORIZED	ISSUED	OUTSTANDING	PAR VALUE	RATE OF INT.	WHEN PAYABLE	LAST QUOTATION
Philippine Friar Land Bonds	Feb. 1st, 1904	$7,000,000	$7,000,000	$7,000,000	$ 100	4%	Feb. 1, 1914	104½
Public Works and Permanent Improvement Bonds	March 1, 1905	$5,000,000	$2,500,000	$2,500,000	$ 100	4%	March 1, 1915	104½
Do.	Feb. 1, 1906	.....	$1,000,000	$1,000,000	$ 100	4%	Feb. 1, 1916	104½
Manila Sewer and Water Works Improvement Bonds	June 1, 1905	$4,000,000	$1,000,000	$1,000,000	$ 100	4%	June 1, 1915	104½
Do.	Jan. 2, 1907	.....	$2,000,000	$2,000,000	$ 100	4%	Jan. 2, 1917	104½
*Philippine Railway First Mortgage Fourt per cent Thirty Year Sinking Fund Gold Bonds	July 1, 1907	$15,000,000	$5,736,000	$5,736,000	$1000	4%	July 1, 1937	97

*Payment of interest guaranteed until maturity or redemption by the Philippine Government.

Professional Cards

CEMENT TESTS

Made according to the latest British Standard Specification, or to any other, as required : : : :

COAL TESTS

Ordinary tests. Caloriphic value. Elementary analysis

MINING INSTITUTE AND ANALYTICAL LABORATORY

Dr. LIVIO SILVA

EXAMINATIONS AND REPORTS FOR FINANCING

CABLE ADDRESS: "YOUNGENG" NEW YORK

C. G. YOUNG

ENGINEERING AND CONSTRUCTION

Sixty Wall Street, New York

EXPERIENCE COVERS:

New Zealand, South America, Australia, United States, Canada, Philippine Islands, and is prepared to handle business throughout China, Japan and the Far East.

MERITORIOUS PROJECTS FINANCED

ALPHABETICAL LIST OF ADVERTISERS

Alhambra Cigar Factory 41
Alphabetical List Advertisers..... 214
American Asiatic S S. Co..... 14
Anderson & Co., Wm. H..... 43
Arnhold Karberg & Co 28
Astor House Hotel Co... 41
Atlantic, Gulf & Pacific Co..... 45

Baldwin Locomotive Works 33
Banco Español Filipino ..... Cover
Bargain Store Manufacturing Co. 36
Bell, David W..... 23
Bohler Bros. & Co., Ltd..... 53
Brighten, Malcolm & Co., Ltd..... 24
British American Tobacco Co., Ltd. 40
Buchheister & Co..... 27
Bureau of Science..... 53

Cadwallader-Gibson Lumber Co.. 20
California-Manila Lumber Co..... 22
Carmichael & Clarke..... 12
Castle Bros.-Wolf & Sons. 50
Chee Hsin Cement Co., Ltd..... 44
China Mutual Life Insurance Co.. 44
China and Manila S. S. Co..... 14
Chinese Eng. & Mining Co..... 4
Chinese Eastern Railway 17
Cia. General de Tabacos Filipinas. 48
Cia. Trasatlantica 48
Clarke, M. A 49

Dailey, C. E 35
Deutsch-Asiatische Bank..... 38
Dickeson, Jones & Co. 34

Earnshaw. M. & Co 9
East Asiatic Dredging Co..... 45
East Batan Coal Mining Co..... 54
Electrical Supply Co. Inc..... 39
Export and Import Lumber Co.... 20

Fairbanks, Morse & Co..... 53
Fox Typewriter..... 33
Fushun Coal..... 3

Gardner Governor Co..... 32
Gas Engine & Power Co. and Charles L. Seabury & Co. Consolidated 8
General Electric Co... 24
Germinal Cigar Factory..... 40
Gordon & Co 52
Grand Rapids Gas. Engine & Yacht Co..... 31
Green Island Cement Co., Ltd. 12

Harvey, Stuart S. 37
Hongkong Rope Mfg. Co., Ltd..... 14
Hongkong & Shanghai Banking Corp..... Cover
Hongkong & Whampoa Dock Co., Ltd..... 12
Hotel des Colonies 42

Imperial Hotel, Ltd..... 42
International Correspondence Schools..... 17
Insular Lumber Co..... 21
International Banking Corp..... Cover

Jardine, Matheson & Co..... 30

Kawasaki Dockyard Co. Ltd..... 9
Kiangnan Dock & Engineering Works 10
Kuenzle & Streiff..... 36

La Parisien Carriage Factory..... 39
Lambert-Springer Co..... 54

Malthoid..... 56
Manila Construction Co.. ..... Cover
McGregor, Samuel & Co..... 21
Mitsu Bishi Dockyard & Eng. Works..... 8
Mitsui Bussan Kaisha 5
Morse & Son, A. J..... 54

New Metropole Hotel..... 42
New Engineering and Shipbuilding Works, Ltd..... 13
Nicolas Tsu..... 7
Nicholson, C. S..... 31

Occidental & Oriental S.S. Co..... 47
Olsen & Co., Walter E..... Cover

Pacific Mail S. S. Co..... 47
Pacific Tank Co..... 56
Paraffine Paint Co..... 56
Penberthy Injector Co..... 32
Philippine Islands 2
Philippine Journal of Science..... 49
Phillippine Lumber Co..... 39
Pickett Harness Co 38
Port Banga Lumber Co..... 21

Racine, Ackermann & Co..... 43
Remington Typewriter Co..... 39
Rife Engine Co. 31
Riley, Hargreaves & Co., Ltd..... 9
Rose, Downs & Thompson, Ltd.... 36

San Miguel Brewery.. 52
Sanitary Steam Laundry..... 31
Santa Mesa Rope Works..... 17
Schuchardt & Schütte, Berlin..... 35
Scientific American 38
Shanghai Dock & Eng. Co., Ltd... 6
Shanghai Electric and Asbestos Co., Ltd 35
Shanghai Gas Co., Ltd..... 51
Shanghai Nanking Railway 19
Shanghai Machine Co..... 27
Shanghai Waterworks Co. Ltd..... 51
Shewan, Tomes & Co..... 29
Shewan, Tomes & Co. 14-15
Siemens Schuckert..... 26
Siemssen & Co.. 25
Southern Pacific Co..... 20
South Manchuria Railway Mining Dept..... 3
South Manchuria Railway..... 18
Sprungli & Co..... 12
Stevenson & Co., Ltd., W. F..... 37
Strong, Frank L..... 32
Swift & Co.....

Taikoo Dockyard and Engineering Company of Hongkong, Ltd..... 11
Tokyo Imperial Hotel..... 49
Toyo Kisen Kaisha..... 47
Truscott Boat Mfg. Co..... 31
Trussed Concrete Steel Co..... 33

United States Shoe Co..... 41

Victorian Government Agency .. 1
Vulcan Iron Works..... 31
Vulcan Iron Works Ltd..... 17

Warner Barnes & Co., Ltd..... 22
Watson & Co., Ltd., A.S..... 36
White & Co. (Inc.). J. G..... 46
Westinghouse Brake Co., Ltd.... 55
Wood Waste Distilleries Co..... 32
Worthington, Henry R..... 30
W T. Henley's Telegraph Work Co., Ltd..... 13

Ynchausti & Co 38
Yokohama Specie Bank..... 50
Young, C. G..... 53

Classified Advertisers' Directory

(Please mention this journal)

AGRICULTURAL IMPLEMENTS
Anderson & Co , W. H.

ALCOHOL DISTILLERS
Cia. General de Tabacos de Filipinas.
Ynchausti & Co.
Wood Waste Distilleries Co.

ASBESTOS GOODS
Shanghai Electric & Asbestos Co., Ltd.

BANKS
Deutsch-Asiatische
Hongkong and Shanghai Banking Corp.
International Banking Corp.
Banco Español Filipino

BOILER MAKERS
Nicolas, Tsu
Babcock & Wilcox (D. W. Bell)

BOILERS (PATENT WATER TUBE STEAM)
General Electric Co.
Jardine Matheson & Co.

BREWERIES
San Miguel Brewery

BRIDGE-BUILDERS
Atlantic, Gulf and Pacific Co
White & Co., Inc., J. G.
Riley, Hargreaves & Co., Ltd.

BROKERS, GENERAL
C. S. Nicholson

BUILDING MATERIALS
California-Manila Lumber Com. Co.
Malthoid Paraffine Paint Co.
W. H. Anderson & Co.
Samuel McGregor & Co.

CABLES, TELEPHONE, TELEGRAPH SUPPLIES
David W. Bell
Brighten, Malcolm & Co., Ltd.
W. T Henley's Telegraph Works Co., Ltd.

CEMENT
Anderson & Co., W. H.
Chee Hsin Cement Co., Ltd.
Chinese Engineering and Mining Co., Ltd.
Green Island Cement Co.. Ltd.
Racine, Ackermann & Co.

CIGAR AND CIGARETTE MANUFACTURERS
Alhambra Cigar Factory
Castle Bros.-Wolf & Sons
Cia. Gral. de Tabacos de Filipinas
Germinal Cigar Factory
Olsen & Co., Walter E.

CIVIL ENGINEERS
Eastern Eng. Co.
C. G. Young

COAL DEALERS
Chinese Engineering and Mining Co., Ltd.
The Mitsui Bussan Kaisha
South Manchuria Railway Co.

COAL HANDLING MACHINERY
Atlantic, Gulf & Pacific Co.

COFFEE DEALERS (WHOLESALE)
M. A. Clarke (Mayon)

CONTRACTORS, (GENERAL)
Atlantic, Gulf and Pacific Co.
Bohler Bros. & Co.
Brighten, Malcolm & Co., Ltd.
East Asiatic Dredging Co.
Frank L. Strong
Gordon & Co.
Lambert-Springer Co.
Siemssen & Co.
White, & Co. Inc., J. G.

CONTRACTORS, ELECTRICAL
Arnhold, Karberg & Co.
Shanghai Electric & Asbestos Co , Ltd.
Shewan Tomes & Co.
Frank L. Strong
Siemens Shuckert
Siemssen & Co.

CONSULTING ENGINEERS
East Asiatic Dredging Co.
Atlantic, Gulf & Pacific Co.
Carmichael & Clarke.
White & Co. Inc. J. G
C. G. Young

DIVING APPARATUS
A. J. Morse & Son

DREDGERS
Dickeson, Jones & Co.
Rose, Downs & Thompson, Ltd.

EDUCATIONAL
I. C. S. Correspondence Schools.

ELECTRIC LIGHTING PLANTS
Arnhold, Karberg & Co.
Brighten, Malcolm & Co., Ltd.
General Electric Co.
Siemens Shuckert
Siemssen & Co.
Shewan, Tomes & Co.

ELECTRICAL SUPPLIES
Arnhold Karberg & Co.
Jardine, Matheson & Co.
Babcock & Wilcox (D. W. Bell)
Belliss & Morcom (D. W. Bell)
General Electric Co.
Shanghai Electric & Asbestos Co., Ltd.
Shewan, Tomes & Co.
Siemens Shuckert
Siemssen & Co.

ENGINES (PUMPING)
Belliss & Morcom (D. W. Bell)
Rife Engine Co.
Siemssen & Co.

EXCAVATORS AND ELEVATORS
Dickeson, Jones Co.
Rose, Downs & Thompson, Ltd

EXPLOSIVES
Jardine Matheson & Co., Ltd.

FIBRE MACHINERY
Dailey, C. E.

FOOD PRODUCTS
Anderson & Co., W. H.
Swift & Co.

GAS. ENGINES
Fairbanks, Morse & Co.
Castle Bros.-Wolf & Sons
Shanghai Gas Co., Ltd.
Truscott Boat Mfg. Co.

HARDWARE
Springer-Lambert Co.

HARNESS MANUFACTURERS
Pickett Harness Co.

HEATING APPARATUS
Shanghai Waterworks Co., Ltd.

HOTELS
Astor House Hotel Co.
Hotel des Colonies
Tokyo Imperial Hotel
New Metropole Hotel

ICE MACHINERY
Vulcan Iron Works

INJECTORS
Penberthy Injector Company.

INSURANCE
Stevenson & Co., Ltd., W. F.

JOURNALS, SCIENCE
The Philippine Journal of Science

LIFE INSURANCE
Mutual Life Insurance Co., Ltd.

LOCOMOTIVES
Brighten, Malcolm & Co., Ltd.
Vulcan Foundry, Ltd.

LUMBER DEALERS
Cadwallader-Gibson Lumber Co.
California-Manila Lumber Com. Co.
Export and Import Lumber Co.
Insular Lumber Co.
Jardine, Matheson & Co.
Philippine Lumber Co.
Port Banga Lumber Co.

MACHINERY MERCHANTS
Arnhold, Karberg & Co.
Shanghai Machine Co.
Frank L. Strong
Stuart S. Harvey
Siemssen & Co.

MARINE ENGINES
Fairbanks Morse & Co.
Truscott Boat Mfg. Co.
Grand Rapids Gas, Engine & Yacht Co.

MILL MACHINERY
Rose, Downs & Thompson Ltd.

MINING MACHINERY
Atlantic, Gulf & Pacific Co.
Shewan, Tomes & Co.
Siemssen & Co.

MINING COMPANIES
Chinese Engineering & Mining Co

MOTORS
Grand Rapids Gas, Eng. & Yacht Co.

MOTOR LAUNCHES
Earnshaw, M. & Co.
Gas Engine & Power Co. and Charles L. Seabury & Co (Consolidated)
Riley, Hargreaves & Co. Ltd.
Fairbanks, Morse & Co.
Truscott Boat Mfg. Co.

OFFICE FURNITURE
Cadwallader-Gibson Lumber Co.

PAINTS OILS AND VARNISH
Lambert-Springer Co.
Shanghai Electric & Asbestos Co., Ltd.

PULLEYS (STEEL)
Schuchardt & Schütte

PUMPS
Shewan. Tomes & Co.
Jardine Matheson & Co.
Henry R. Worthington.
Shanghai Machine Co.
The Gardner Governor Co.

RAILROADS
Shanghai-Nanking.
South Manchuria
Southern Pacific Co.

RAILROAD SUPPLIES
Arnhold Karberg & Co.
Brighten, Malcolm & Co., Ltd.
Jardine, Matheson & Co., Ltd.
Siemssen & Co.
Westinghouse Brake Co., Ltd.

REINFORCED CONCRETE CONSTRUCTION
Trussed Concrete Steel Co.

ROOFING PAPER
Malthoid
Standard Paint Co.

ROPE MANUFACTURERS
Hongkong Rope Mfg. Co. Ltd.
Santa Mesa Rope Works.
Ynchausti & Co.

SANITARY ENGINEERING
Gordon & Co.
Shanghai Waterworks Co., Ltd.

SAW MILLS
Export and Import Lumber Co.
Insular Lumber Co.
Jardine, Matheson & Co.
Cadwallader-Gibson Lumber Co.
Port Banga Lumber Co.

SERUM
Bureau of Science

SHIP-CHANDLERY
Ynchausti & Co.

SHIPPING AGENTS
Castle Bros.-Wolf & Sons
Cia. General de Tabacos
Shewan, Tomes & Co.
Stevenson & Co., Ltd.
Warner, Barnes & Co., Ltd.

SHIPBUILDING AND REPAIRS
Gas Engine & Power Co. and Charles L. Seabury & Co. (Consolidated)
Hongkong & Whampoa Dock Co., Ltd.
The Kawasaki Dockyard Co. Ltd.
Kiangnan Dock and Engineering Co., Ltd.
Mitsu Bishi Dock and Engineering Works
New Engineering and Shipbuilding Works, Ltd.
Nicolas Tsu
Shanghai Dock and Engineering Co., Ltd.
The Taikoo Dockyard and Engineering Company of Hongkong, Limited
Earnshaw, M. & Co.
Vulcan Iron Works, Ltd.

STEAMSHIP COMPANIES
American Asiatic S. S. Co.
China and Manila S. S. Co., Ltd.
Cia. General de Tabacos
Occidental and Oriental S. S. Co.
Pacific Mail S. S. Co.
Toyo Kisen Kaisha S. S. Co.
Transatlantica S. S. Co.
Ynchausti & Co.

STEEL WORKS
Bohler Bros. & Co.

STRUCTURAL STEEL
Bohler Bros. & Co.
A. Gulf & Pacific Co.

TANKS
Atlantic, Gulf & Pacific Co.
Pacific Tank Co.

TILES AND BRICKS
Green Island Cement Co., Ltd
Chinese Eng. Mining Co.
Manila Construction Co.

TOBACCO DEALERS
British American Tobacco Co., Ltd
Cia. General de Tabacos
Olsen & Co., Walter E.

TOOLS
Shanghai Machine Co.

TYPEWRITERS
The Fox Typewriter
Remington Typewriter Co.

WELL DRILLING MACHINERY
Keystone Driller Co.

WINDMILLS
Fairbanks, Morse & Co.

WOOD PRESERVATIVE
Sprungli & Co.



A. J. MORSE & SON, INC.
221 High St., Boston, Mass , U. S. A.
ESTABLISHED 1837
DIVING APPARATUS
Special Apparatus built to order
FRANK L. STRONG, Agent -:- 24 Calle Echague, Manila, P. I

"FIGHTING BOB"

Admirals
Commanders
Lieut.-Commanders
Ensigns
Cadets

Divinos
Perfectos
Regalias
Bouquets
Londres

"JOSE RIZAL"

Generals
Colonels
Majors
Captains
Lieutenants

Perfectos
Sergeants
Corporals
Privates
Londres

BY MEN WHO KNOW the value of a good cigar, these two brands are particularly appreciated. They represent the real worth of a cigar in quality and workmanship; the two most essential features of a good smoke. They are manufactured from the most carefully selected leaf grown in the rich fields of Isabela Province, and no expense is spared in the preparation of the filler as well as the wrapper, and the result is a cigar that is as perfect as is possible to manufacture. : : : : : :

MILD, FRAGPANT SATISFYING Three important requisites so often found lacking in the usual run of cigars. That's why they sell.- Smoke any shape in critical comparison with the best cigar you know of equal money value and prove to your own satisfaction that these cigars are a revelation of excellence in point of aroma as well as shape. Don't be put off when the dealer offer you "something just as good." Remember the money is yours, and that dealers seldom offer substitutes for your benefit. : : : : : : : : : : : : : :

FOR SALE BY ALL LEADING HOTELS, CLUBS, BARS AND FIRST CLASS CIGAR STORES

KIOSKO HABANERO
27 ESCOLTA

Walter E. Olsen & Co
CIGAR & TOBACCO MERCHANTS MANILA P.I.
MANILA, P. I.

KIOSKO RIZAL
168-170 ESCOLTA

BANCO ESPAÑOL FILIPINO

(ESTABLISHED 1851)

Depository for the Government of the Philippine Islands

Capital Fully Paid up - - - - ₱1,739,000
Reserve Fund - - - - - - - - ₱ 225,000

London Bankers
THE NATIONAL BANK OF SCOTLAND, LTD.

Buys and sells Drafts on Spain, France, Germany, England and other countries.

TELEGRAPHIC TRANSFERS

Interest allowed on fixed deposits and current accounts at usual rates.

GENERAL BANKING BUSINESS

BRANCH IN ILOILO

PRESIDENT
EUGENIO DEL SAZ-OROZCO

VICE-PRESIDENT
GONZALO MARZANO

NO. 10 PLAZA DE CERVANTES

Something About Roofing

OUR DOUBLE-INTERLOCKING-REINFORCED-CEMENT ROOFING TILE

THE ROOFING FOR THE TROPICS
Maximum of Strength Minimum of Weight

WATERPROOF, FIREPROOF
DUSTPROOF, VERMINPROOF

The Philippine Government has adopted the DOUBLE-INTERLOCKING-REINFORCED-CEMENT ROOFING TILE as its Standard.

The U. S. Constructing Quartermaster says:

"Test shows this tile to be of superior grade. Would respectfully recommend the use of these tiles on any construction."

CAN BE PUT ON AT APPROXIMATELY THE SAME COST AS GOOD GRADE CORRUGATED SHEET IRON AND WILL LAST FOREVER WITHOUT PAINTING

WRITE FOR PARTICULARS
or Call at the Temporary Plant or Office

MANILA CONSTRUCTION COMPANY

OFFICE: 27 ESCOLTA

Temporary Works: Philippine General Hospital Site

MANILA, P. I.

Cable Address: "KIOSKO"
Code: A. B. C. 5th Edition

Telephone Nos. 489, 147 & 125
Postoffice Box 489